United States Court of Appeals for the Second Circuit

APPENDIX

77-6168

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UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

UNITED STATES OF AMERICA,

Plaintiff-Appellee-
Cross-Appellant,

-against-

CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.,

Defendant-Appellant-
Cross-Appellee.

ON APPEAL FROM THE UNITED STATES DISTRICT
COURT FOR THE SOUTHERN DISTRICT OF
NEW YORK

JOINT APPENDIX
Volume III
(Pages A1309 to A1815)

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SHEARMAN & STERLING
Attorneys for Defendant-Appellant-
Cross-Appellee
53 Wall Street
New York, New York 10005
(212) 483-1000

ROBERT B. FISKE, JR.
United States Attorney for the
Southern District of New York
Attorney for Plaintiff-Appellee-
Cross-Appellant
One St. Andrew's Plaza
New York, New York 10007
(212) 791-0055

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DX O-8	Five page document of ltr. from Quinn to Abbadessa, et al. w/draft ltr. attached......................	A2355
DX P-8	Three page document from Quinn to Bloch, et al., w/draft letter attached.......	A2360
DX Q-8	Two page ltr. to Quinn from Sapirie, dated 9/10/70......................	A2363
DX T-8	Two pp doc., Memo of 10/1/70 to W. Campbell, through W.A. Harwell, Attached chart "Reductions in Power-Ramdon Mixes", 10/1/70..............	A2365
DX U-8	Three pp doc., 4/29/70 from Quinn to Hollingsworth........................	A2367
DX V-8	Telephone conversations 7/23/70 p. 24-40.............	A2370
DX W-8	Telephone conversations 7/24/70 p. 41-48.............	A2387
DX B-9	Telephone conversation between Quinn and Poddis 8/6/70.......................	A2395
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DX P-9	Enrichment Supply & New Plant Requirements - Pp. 21-34 by G. F. Quinn.........	A2400
DX Q-9	Memo to File from L.W. Meyer, 9/11/70 re Meeting with Consolidated Edison Officials 9/1/70 with attached telex from C.F. Luce.........................	A2414

Trial Identification	Description	Page
DX R-9	Telephone conversation between Quinn and Sapirie, 7/27/70..............	A2419
DX S-9	Table dated 4/20/70...........	A2420
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DX U-9	Table entitled "Laws of Efficiency Approach"..........	A2424
DX V-9	Table entitled "Reference Planning Case Charge Calculation"..................	A2425
DX V-9A	Document entitled "Economics of Existing and Improved U.S. Gaseous Diffusion Plants," dated October 17-21, 1971..................	A2426
DX W-9	Table entitled "Reference Planning Case Charge Calculation"..................	A2463
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DX Y-9	Table entitled "'Threshold Method'"......................	A2465
DX C-11	Plaintiff's answer to defendant's interrogatories...	A2466
CT 1	Letter dated May 9, 1977 from Plaintiff's counsel to Judge Pierce...............	A2493
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U.S. DISTRICT COURT
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S.D. OF N.Y.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

---x

UNITED STATES OF AMERICA,

Plaintiff,

- v -

74 Civ. 3121

44163

CONSOLIDATED EDISON COMPANY OF
NEW YORK, INC.,

Defendant.

---x

APPEARANCES:

ROBERT B. FISKE, JR.
United States Attorney for the
Southern District of New York
BY: CHARLES FRANKLIN RICHTER, ESQ.
THOMAS E. MOSELEY, ESQ.
Assistant United States Attorneys
One St. Andrew's Plaza
New York, New York 10007

Attorneys for Plaintiff

WERNER L. POLAK, ESQ.
THOMAS M. GEISLER, JR., ESQ.
SHEARMAN & STERLING
53 Wall Street
New York, New York 10005

Attorneys for Defendant

LAWRENCE W. PIERCE, D.J.

OPINION AND ORDER

On July 21, 1970, Consolidated Edison Company of New York ("Con Ed") suffered a power failure at its Ravenswood electrical facility, commonly known as "Big Allis". Pursuant to a plan to meet possible energy shortages, plaintiff the United States advised defendant that several hundred megawatts of power could be made available to Con Ed if the Atomic Energy Commission ("AEC") were to reduce its power consumption at certain uranium enrichment facilities and relinquish certain contracted-for electrical power. With the cooperation of several other utilities, the transfer of some 200 MW of power was accomplished during the period between July 27, 1970 and October 1, 1970. This lawsuit was commenced by the United States to recover on an alleged contractual agreement whereby Con Ed agreed to compensate plaintiff for costs incurred in the relinquishment of the right to the 200 MW. Defendant now moves for summary judgment on all counts.

Significant discovery has been undertaken and many of the facts underlying this case are not in dispute. The following facts, drawn from the Rule 9(g) statements of the parties, are uncontested unless otherwise noted.

In May, 1970, plaintiff adopted a plan to meet possible energy shortages in the upcoming summer months. A key segment of the plan provided that, in the event of a power shortage, the AEC would reduce power consumption at its uranium enrichment facilities, thus freeing power for consumption by utilities in emergency need. (See Def. Ex. VII). The "May 5 plan" made no mention of the possibility that the government might seek to impose a surcharge on utilities in return for the relinquishment of power. However, plaintiff asserts that an issue of fact exists as to whether it knew, in May 1970, that such a surcharge would be necessary.

In early July, 1970, plaintiff released some 450 MW of electrical power to three utilities pursuant to the May 5 plan. It is undisputed that plaintiff did not at that time seek to impose any surcharge upon these utilities, the Tennessee Valley Authority ("TVA"), Ohio Valley Electrical Corporation ("OVEC") and Electric Energy, Inc. ("EEI"). Plaintiff asserts that there is a factual issue as to whether at that time plaintiff knew of its need to recover costs incurred.

On July 21, 1970, defendant's Big Allis plant went down and defendant was faced with a true power crisis. By the following day, the Office of Energy Preparedness and the Executive Office of the President were advised of the details of the power outage. By July 23, 1970, senior advisers to the President were working on the problem. It is not contested that on July 23, 1970, the President himself decided that the plaintiff should endeavor to supply available power to Con Ed pursuant to the May 5 plan. Defendant asserts that discovery has shown that this decision was made without regard to whether AEC would be paid or credited by Con Ed for any losses incurred. However, plaintiff asserts that the White House was aware of the need for a surcharge (see Quinn Affd. ¶s 18, 19 and Plf. Ex. 2) and states that an issue of material fact exists as to whether the White House intended AEC to relinquish its contract rights regardless of compensation.

Later that same day, members of the White House staff called the offices of defendant to inform Con Ed of the President's decision to implement the May 5 plan. In these initial conversations between the White House and Con Ed there was no discussion of a surcharge. Further, the press release issued by plaintiff the same day made no mention of a surcharge (Def. Ex. XXVII). However, plaintiff asserts that factual issues are present on the question of whether the White House stated that power was available or whether it advised Con Ed to contact the AEC to determine whether power was available. Plaintiff also asserts that a factual issue exists as to whether the White House statements were intended to bind the AEC on the surcharge issue.

In any event, Con Ed did thereafter telephone the AEC. In conversations held July 24, 1970, representatives of Con Ed and the AEC discussed the question of increased costs to AEC through the relinquishment of power. The parties differ widely on the substance of the conversations. Plaintiff states that Con Ed agreed to pay AEC's costs. Defendant states that, at best, Con Ed agreed to take power on the same terms as TVA, OVEC and EEI had received power. Neither party asserts that a price was agreed upon. Plaintiff argues that the conversations were a prelude to further negotiations to ascertain a reasonable surcharge. The gravamen of defendant's position is that by the time of the July 24, 1970 conversations, plaintiff had already decided to deliver the power and thus any statements by the AEC were merely attempts to pursuade Con Ed to voluntarily assist in defraying AEC expenses.

Subsequent to these discussions, AEC relinquished its right to 200 MW of electrical power which it held under contract from OVEC and TVA. Con Ed dealt directly with OVEC and TVA to arrange for the transmission of the 200 MW over long distance power lines. By July 27, 1970, the power commenced its flow to New York. The arrangement continued until the crisis had past, on October 1, 1970.

There is no dispute that Con Ed paid OVEC and TVA for the cost of the production of the power and that it paid intermediate utilities for the cost of the transmission. In early August, 1970, the AEC entered into letter agreements with OVEC and TVA whereby it formally relinquished its right to 200 MW. (See Def. Ex. XXXVII, XXXVIII & XXXIX.) Under the terms of the letter agreements, the utilities were to collect from Con Ed a surcharge of 5.41 mill per kilowatt hour and credit the funds against AEC's accounts. These letter agreements form the basis of plaintiff's second cause of action, in which it asserts that the utilities were acting as agents for Con Ed. However, it is now undisputed that Con Ed was not a party to the letter agreements and that Con Ed was never consulted on the question of the 5.41 mill surcharge until after the three letter agreements were executed. Within a few days, Con Ed was informed by TVA and OVEC that they were to collect for AEC a 5.41 mill surcharge. Representatives of Con Ed telephoned the AEC, questioning the size of the surcharge, which was equal to approximately 100% of the cost of the production of the power. Over the next few days negotiations between the parties continued. Apparently, Con Ed's position at one point was that it considered a 20% surcharge reasonable and comparable to that which other utilities had paid. However, when Con Ed discovered that the other utilities had not been required to pay any surcharge, the negotiations began to fall apart.

On August 10, 1970, Con Ed advised OVEC and TVA by telegram that the surcharge was under discussion and that they should not accept any surcharge without Con Ed's consent. (See Def. Ex. XL.) It is not disputed that plaintiff was aware of these telegrams. Nor is it disputed that, despite the breakdown of negotiations, plaintiff did not terminate the relinquishment and defendant did not terminate the receipt of the power.

The substance of the final conversations are disputed. It appears that there is a dispute as to whether defendant ever flatly stated that it would not pay unless the other utilities who had benefitted by the May 5 plan also paid. Plaintiff maintains that defendant never refused to pay and that the only dispute was as to price. Towards the end of this period, plaintiff made an attempt to impose a surcharge upon the utilities which had received the 450 MW in early July. Those utilities refused to pay. Con Ed also refused to accept the surcharge.

On July 22, 1974 the United States, as plaintiff, commenced this action pursuant to 28 U.S.C. §1345. Count One of the complaint demands damages for breach of an alleged contract formed by Con Ed's acceptance of plaintiff's offer of power relinquishment in consideration for cost reimbursement. Count Two alleges breach of the written letter agreements between AEC and TVA and OVEC, alleging that the utilities were acting as agents for Con Ed. Count Three claims that Con Ed is estopped from denying the existence of a contract and Count Four seeks recovery on a contract implied in fact and in law. The amount sought by plaintiff totals $1,713,617.50, equivalent to a 5.41 mill surcharge.

In deciding whether to grant summary judgment, this Court must take heed of the growing number of decisions of the Circuit Court following Heyman v. Commerce & Industry Insurance Co., 524 F.2d 1317 (2d Cir. 1975), which counsel that summary judgment is a drastic remedy to be applied only if it is clear that there are no issues of material fact once all reasonable inferences have been resolved in favor of the party opposing the motion; see Williams v. McAllister Brothers, Inc., No. 75-7209 (2d Cir. April 6, 1976); United States v. Bosurgi, No. 75-6013 (2d Cir. January 29, 1976); Judge v. City of Buffalo, 524 F.2d 1321 (2d Cir. 1975).

> "However, it is equally true that summary judgment should not be denied where the only issues raised are frivolous or immaterial ones which would simply serve to provide an exercise in futility or a purposeless trial . . . ." (United States v. Matheson, No. 75-6062 (2d Cir. March 3, 1976) Slip Op. 2279, 2285).

Plaintiff's first argument in opposition to summary judgment goes to the nature of defendant's supporting affidavits. Defendant's counsel has supplied his own affidavit which by reference to the voluminous materials produced in discovery sets forth a narrative of the pertinent events. Plaintiff argues that this is an affidavit not on personal knowledge and thus that the motion is defective; see United States v. Bosurgi, supra. The Court rejects this argument. The affidavits found defective in Bosurgi went beyond the facts adduced in discovery and attempted to relate new factual matters; see Id., Slip Op. 1647 at 1658. Here defense counsel has merely gathered his evidence and presented it in a convenient manner. To the extent that the attorney's affidavit contains any inferences, the Court is able to distinguish between inference and uncontested fact.

Plaintiff's first cause of action seeks recovery in contract. Defendant argues that there is no contract because prior to any discussion with Con Ed, the plaintiff had decided to relinquish its right to the power. Second, defendant argues that the phone conversations were not intended as a binding contract and that the terms were too vague and indefinite. The third argument, which the Court finds persuasive, is that any oral agreement is barred by the Statute of Frauds.

Defendant urges that the applicable Statute of Frauds is U.C.C. §1-206, which was in force in all three jurisdictions connected to the transactions, New York, Maryland and the District of Columbia. U.C.C. §1-206 is the Code's "catch-all" Statute of Frauds, applicable to all contracts for sale of personalty other than goods (U.C.C. §2-201), securities (§8-319) and security agreements (§9-203). Section 1-206 provides as follows:

> "(1) Except in the cases described in subsection (2) of this section a contract for the sale of personal property is not enforceable by way of action or defense beyond five thousand dollars in amount or value of remedy unless there is some writing which indicates that a contract for sale has been made between the parties at a defined or stated price, reasonably identifies the subject matter, and is signed by the party against who enforcement is sought or by his authorized agent."

Plaintiff asserts that state law is inapplicable to this contract of the United States under the doctrine of *Clearfield Trust Co.* v. *United States*, 318 U.S. 363 (1943), which held that the courts must apply a uniform standard of federal common law in determining the obligations and rights of the United States on commercial paper issued by it. *Clearfield* reasoned that since the government issued notes to persons in many jurisdictions, it was highly desirable to establish a uniform rule instead of relegating the legal obligations of the United States to the laws of the several states. *Id.* at 367. Several cases have followed this rule in examining contracts which are of a nature repeatedly entered into by the United States, and at least one court has ruled that the *Clearfield* doctrine operates to make state Statutes of Fraud inapplicable; see *Penn-Ohio Steel Corp.* v. *United States*, 354 F.2d 254 (Ct. Cl. 1965).

However, it is clear that *Clearfield* is not automatically applicable to every government contract.

> "'In our choice of the applicable federal rule we have occasionally selected state law.' *Clearfield Trust Co.* v. *United States*, 318 U.S. at 367. The Government, for instance, may place itself in a position where its rights necessarily are determinable by state law . . . . In other situations it may fairly be taken that Congress has consented to application of state law . . . . And in still others

> state law may furnish convenient solutions in no way inconsistent with adequate protection of the federal interest." (United States v. Standard Oil Co., 332 U.S. 301, 308-09 (1947))

The rationale of Clearfield was that the United States should not be faced with varying rights and duties under different state laws on types of contracts which it repeatedly makes, such as through the issuance of commercial paper. Here the parties allegedly entered into a contract which was highly unique; only one other arrangement of a similar nature is referred to by the parties. Accordingly, the central reasoning of Clearfield is not applicable to this fact situation and in this Court's view the Court should look instead to state law.

Further, even if this case is appropriate for the application of federal common law, there is a growing body of case-law supporting the conclusion that the Uniform Commercial Code, presently in effect in nearly every state, is also the federal rule on commercial matters.

> "We find persuasive the defendant's suggestion of looking to the Uniform Commercial Code as a source of the 'federal' law of sales. The Code has been adopted [by most jurisdictions] and is thus well on its way to becoming a truly national law of commerce . . . ." (United States v. Wegematic Corp., 360 F.2d 674, 676 (2d Cir. 1966) (Friendly, J.))

Other decisions have applied the Code to federal contracts; see John C. Kehler Co. v. United States, 498 F.2d 1360, 1367 (Ct. Cl. 1974); In re Yale Express Systems, Inc., 370 F.2d 433, 437 (2d Cir. 1966). Accordingly, whether the Code is the applicable state law or whether it is the applicable federal rule, the Court concludes that its provisions control the alleged contract between the plaintiff and Con Ed.

Once this determination has been made, the application of U.C.C. §1-206 is elementary. The sale by plaintiff to defendant clearly was the transfer of a contract right. Section 1-206 is applicable to the sale of general intangibles and to the sale of a chose in action, such as plaintiff's contract right here; see Official Comment to §1-206. The contract sued upon here clearly was for an amount in excess of $5,000 and it is undisputed that Con Ed never entered into any writing embodying an agreement with plaintiff. The terms of §1-206 allow no exception for the requirement of a writing; specifically, there is no "receipt and acceptance" exception such as contained in the Code's Article on Sale of Goods, §2-201(3)(c). Accordingly, the Court concludes that Count One of the complaint is barred by the Statute of Frauds and that summary judgment should be granted on that count.

However, the bar of the Statute does not foreclose the application of equitable contract principles, which the Court discusses within.

Summary judgment is also appropriate on Count Two of the complaint. Plaintiff has brought forward no evidence demonstrating that OVEC and TVA were acting as agents for Con Ed when they entered into the letter agreements with the AEC. Defendant has demonstrated that there is no issue of material fact on this count. In fact, plaintiff concedes in its memo that

> "Discovery in this action has shown that TVA and OVEC were not acting as agents of Con Edison and therefore plaintiff no longer seeks relief on its second cause of action." (Plf. Memo at 19n.)

A contract binds only those party to the writing unless there is language clearly evidencing otherwise; see United States v. Algoma Lumber Co., 305 U.S. 415, 421-22 (1939). Summary judgment is granted on Count Two.

Plaintiff's third theory of recovery is based on the equitable principle of estoppel. Under this doctrine the Statute of Frauds is inapplicable and the plaintiff may recover if it demonstrates that it changed position in detrimental reliance on the promise of defendant. In this case plaintiff clearly altered its position by relinquishing its contract right to 200 MW. Plaintiff alleges that it suffered detrimental reliance through increased production costs, equipment damage, and "blending losses" incurred due to the necessity of taking partly-enriched uranium out of the reactor process. Whether or not these actions were taken in reliance on a promise by Con Ed to defray costs or whether, as defendant argues, the decision to relinquish was made by the White House regardless of any recoupment of losses is an issue of material fact which cannot be resolved on this motion. As previously noted, defendant's contention that the crucial decision had been made by July 23, 1970 is arrayed against plaintiff's affidavit and exhibit which allegedly indicate that the White House decision included an intent to recover costs incurred. Summary judgment on the third count must be denied; Heyman v. Commerce & Industry Ins. Co., supra.

Judgment on the Fourth Count is also foreclosed by the presence of issues of material fact. In this count, plaintiff proceeds on two theories, contract implied in fact and contract implied in law, or quasi-contract. In order to sustain the first theory, plaintiff must show that it rendered a service to defendant under circumstances where defendant had reason to understand that the service was for Con Ed's benefit and was not rendered gratuitously. Further, plaintiff must show that defendant benefitted by the service; see Bloomgarden v. Coyer, 479 F.2d 201, 208-09 (D.C. Cir. 1973). An implied contract must contain all the necessary elements of a written contract except the writing and the conduct of the parties must unambiguously point to the existence of a contract; see Id. at 208; Roebling v. Anderson, 257 F.2d 615, 619 (D.C. Cir. 1958), cert. denied, 366 U.S. 918 (1961).

Defendant argues for judgment on this count by urging that the evidence can in no way demonstrate "unambiguous" conduct evidencing a contract. However, some of the evidence supplied could demonstrate that the parties were negotiating the terms of an agreement. While the conduct of the parties is not necessarily consistent with a contractual arrangement, a finder of fact could conclude that the conduct did show a contract. The failure of the parties to agree on a price term does not bar the possibility that the factfinder could locate a meeting of the minds. So long as the price term was subject to a reasonable method of computation at the time of the making of the contract, the contract will not fail for failure of fixing a price. It is sufficient if the price is fixed by something other than the future whim of the promisee; see Moon Motor Car Co. v. Moon Motor Car Co., 29 F.2d 3, 4-5 (2d Cir. 1928) (L. Hand, J.).

Defendant's arguments demonstrate only that plaintiff has a high burden of proof on the fourth cause. Yet this does not warrant the grant of summary judgment.

> "Where, as here, the existence and terms of a contract must be determined by drawing inferences of fact from all of the pertinent circumstances, and the possible inferences are conflicting, the choice is for [the finder of fact]." (Osborn v. Boeing Airplane Co., 309 F.2d 99, 103 (9th Cir. 1962))

While the foregoing analysis forecloses summary judgment on Count Four, the Court also notes that plaintiff's alternate theory, contract implied in law, is also not appropriate for summary disposition. To establish quasi-contract, plaintiff must show that defendant was unjustly enriched by plaintiff's actions and that, in good conscience, defendant should make restitution; see Bloomgarden v. Coyer, supra, 479 F.2d at 211; Bradkin v. Leverton, 26 N.Y.2d 192, 309 N.Y.S.2d 192, 257 N.E.2d 643 (1970).

Defendant argues that it has paid the fair value of the services received, i.e., the cost of production and transmission of the electricity to TVA and OVEC. Accordingly, argues Con Ed, there is no unjust enrichment and plaintiff can have no recovery. The Court finds this argument specious; defendant's real crisis in July, 1970, was that there was no power available. If plaintiff had not relinquished to defendant its contract right to 200 MW of power, defendant might have been unable to prevent a massive power failure. The relinquishment allowed Con Ed to fulfill its statutory duty to supply electrical power. The cost of production and transmission can hardly be said to be the fair value of 200 MW in a market where there are no such amounts of electricity available for purchase. Accordingly, resolving all factual inferences in favor of the plaintiff, the Court concludes that summary judgment cannot be granted on the quasi-contract claim.

The motion of defendant Consolidated Edison for summary judgment is granted on Count One and Count Two of the complaint; the motion for summary judgment on Counts Three and Four is denied.

SO ORDERED.

Dated: New York, New York
May 21, 1976

LAWRENCE W. PIERCE
U. S. D. J.

T.M. Gesile J.

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74 Civ. 3121. United States of America -v- Consolidated Edison

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ENDORSEMENT ORDER

Defendant Con Edison moves to reargue that portion of the Court's decision dated May 25, 1976 which sustained plaintiff's claim of contract implied in fact against defendant's motion for summary judgment.

Defendant re-iterates its argument that a contract implied in fact is unenforceable unless it satisfies the requirements of any applicable Statute of Frauds. Counsel for plaintiff, Assistant United States Attorney Richter, has now informed the Court that plaintiff has no opposition to the motion to reargue and that plaintiff does not differ with the defendant on this question of law.

Upon reconsideration, the Court finds persuasive defendant's arguement, despite the fact that the authorities cited appear themselves uncertain on the question; see, e.g., Roebling v. Anderson, 257 F.2d 615, 622 (D.C.Cir. 1958). But see Jenkins v. King, 65 N.E.2d 121, 124, 224 Ind. 164 (1946). Accordingly, the Court reverses its earlier conclusion and rules that plaintiff may not rely on the theory of contract implied in fact, since it is undisputed that there was no writing entered into between the parties, and since the Court has ruled that U.G.C. § 1-206 is applicable to this action.

Accordingly, defendant's motion to reargue is granted, and on the merits the Court grants the motion for summary judgment against plaintiff's claim of contract implied in fact. However, the Court notes that Count Four of the complaint remains, since plaintiff retains the theory of quasi-contract.

A copy of this order should be filed annexed to the Court's opinion and order dated May 25, 1976

Motion granted.

SO ORDERED.

LAWRENCE W. PIERCE
U. S. D. J.

Dated: August 2, 1976
New York, N.Y.

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U.S. DISTRICT COURT
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S.D. OF N.Y.

MEMO. ENDORSED—

CFR:lq
73-3529

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

S. D. OF N.

UNITED STATES OF AMERICA, Plaintiff, -v- CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., Defendant.	**NOTICE OF MOTION** 74 Civ. 3121 (LWP)

SIRS:

PLEASE TAKE NOTICE that based upon all of the papers submitted in support and in opposition to defendant's motion for summary judgment herein, plaintiff United States of America pursuant to the Federal Rules of Civil Procedure will move this Court on Friday, June 18, 1976, at 10:00 A.M. in Room 2601 of the United States Courthouse, Foley Square, New York, New York, 10007, for reconsideration of that part of its opinion and order of May 25, 1976, in this action granting summary judgment in favor of defendant on the claim asserted in Count One of plaintiff's complaint.

Dated: New York, New York
June 4, 1976

ROBERT B. FISKE, JR.
United States Attorney for the
Southern District of New York
Attorney for Plaintiff,
United States of America

By: Charles Franklin
CHARLES FRANKLIN RIC
Assistant United Stat
Office and Post Office Ad
United States Courthouse Ann
One St. Andrew's Plaza
New York, New York 10007
Telephone: (212) 791-1972

TO: SHEARMAN & STERLING
53 Wall Street
New York, New York 10005

RALPH L. LEE
Notary Public, State of New York
No. [illegible] Queens County
Term Expires [illegible]

74 Civ. 3121, UNITED STATES OF AMERICA v. CONSOLIDATED EDISO
COMPANY OF NEW YORK, INC.

ENDORSEMENT ORDER

The government moves to reargue that portion of the Court's decision dated May 21, 1976 which granted defendant's motion for summary judgment and dismissed Count One, the contract claim, of the government's complaint.

The movant's argument is two-fold. First, the government argues that the transaction at issue here was not the transfer of a contract right, but rather that it was the relinquishment of a contract right. The distinction is important since, at least under the Uniform Commercial Code, a transfer of rights is governed by the statute of frauds, while the relinquishment of a contract right is not subject to the statute. See N.Y. U.C.C. §1-206; Restatement of Contracts §199, Illustration 6. Second, the government seeks to reargue the question of whether this contract should be governed by the U.C.C. or by federal common law. See Clearfield Trust Co. v. United States, 318 U.S. 363 (1943). In its latest submission on this motion, the government now argues that the applicable statute of frauds is contained in 31 U.S.C. §200(a).

Addressing the second argument first, the Court adheres to its previous ruling with respect to choice of law. The Court agrees with the observation made by the defendant's counsel to the effect that if 31 U.S.C. §200(a) is indeed a statute of frauds, then Congress has done a successful job of concealing that fact. While the text of the statute is far from clear, the legislative history demonstrates that 31 U.S.C. §200(a) was passed for the purpose of requiring the agencies of the government to record in writing the money obligations of the United States for specifically authorized projects. Second, even were 31 U.S.C. §200(a) considered to be a statute of frauds, it is clear that the section is inapplicable to a contract such as that claimed to exist here. In this action, the government alleges that it is owed money by defendant as the result of the relinquishment of its contract rights. The obligation is alleged to be that of the defendant, not of the government. Accordingly, the Court concludes that 31 U.S.C. §200(a), whether or not it is a statute of frauds, is not applicable to this action and thus the Court adheres to its previously-announced view that U.C.C. §1-206 is the statute of frauds applicable to this case.

However, the Court finds that the government's second argument demonstrates that an issue of material fact exists which cannot be resolved on a summary judgment motion. In its prior decision, the Court stated that the transaction

U.S. DISTRICT COURT
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LAWRENCE W. PIERCE, J

in this case "clearly" constituted the transfer of a contract right. However, the government has directed the Court's attention to probative evidence to support its position that what occurred herein was the relinquishment of a right. Specifically, the Court refers to that portion of the deposition of Charles Luce, Con Edison's Chairman, wherein he sets forth a statement made by George Quinn, an officer of the A.E.C., an agency of the plaintiff. According to Luce, Quinn stated: "You don't buy the power from us [the government]; you contract with T.V.A. and O.V.E.C."

Pursuant to the standards governing motions for summary judgment, the Court concludes that there is a genuine issue of material fact presented with respect to whether the transaction at issue was a transfer or a relinquishment of a contract right. If it was the former, the statute of frauds bars the contract claim, and Count One must be dismissed. If it was the latter, the agreement is not controlled by the statute.

This Court may not, at this juncture, resolve any material issues of fact relating to the nature of the transaction herein. Such a determination is impermissible under Heyman v. Commerce & Industry Insur. Co., 524 F.2d 1317 (2d Cir. 1975). The quotation from the Luce deposition constitutes sufficiently probative evidence supporting plaintiff's position to defeat the summary judgment motion. See United States v. Pent-R-Books, 538 F.2d 519 (2d Cir. 1976).

Accordingly, the attached motion to reargue is granted, and for the reasons stated above that portion of the May 21, 1976 decision which dismissed Count One is hereby vacated. Count One is reinstated and the motion for summary judgment with respect to that Count is hereby denied. A copy of this order is to be filed and attached to the court's decision of May 21, 1976.

Motion granted.

SO ORDERED.

Dated: New York, New York
January 31, 1977

LAWRENCE W. PIERCE
U. S. D. J.

VED
JUN 7 1976
CHAMBERS OF
LAWRENCE W. PIERCE

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

--------------------------------------x

UNITED STATES OF AMERICA, : 74 Civ. 3121 (LWP)

Plaintiff, : DEFENDANT'S INTERROGATORIES TO PLAINTIFF -- SET NO. 1

-against- :

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., :

Defendant. :

--------------------------------------x

PLEASE TAKE NOTICE that defendant Consolidated Edison Company of New York, Inc., ("Con Edison") by its undersigned attorneys hereby requests plaintiff, United States of America, to answer under oath the following written interrogatories, separately and fully in writing, within thirty (30) days after the date of service of this Notice.

9/27

DEFINITIONS

As used in these Interrogatories, the following terms have the following meanings:

A. "AEC" means the former Atomic Energy Commission and its successors, each present and former commissioner, officer, employee, agent or other person acting or purporting to act on behalf of it.

B. "AEC" followed by a number, *e.g.*, "AEC

235", means the document so numbered and produced by plaintiff in response to defendant's Notice to Produce - Set No. 1 (unless the context indicates otherwise).

C. "AEP" means the American Electric Power Company or American Electric Power Service Corporation, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of either of them.

D. "Con Edison" means defendant Consolidated Edison Company of New York, Inc.

E. "CE" followed by a number, *e.g.*, "CE 123", means the document so numbered and produced by defendant in response to plaintiff's Notice to Produce.

F. "Document" means any correspondence, book, pamphlet, periodical, letter, memorandum, including any memorandum or report of a meeting or telephone or other conversation, diary, telegram, telex, cable, report, record, contract, agreement, study, handwritten note, draft, working paper, chart, paper, graph, index, tape, data sheet or data processing card, and any other written, recorded, transcribed, punched, taped, filmed, or graphic matter, however produced or reproduced. As used herein, "document" shall include originals and all nonidentical copies (whether different from the original because of handwritten notes or underlining on the copy or otherwise).

G. "DX" followed by a number, e.g., "DX 13", means the Defense Exhibit for Identification so numbered during the taking of depositions in this case.

H. "Identify", when used in reference to a natural person means his full name and present or last known address, his present or last known position and business affiliation, and his position and employer (if plaintiff was employer, specify agency, department, or other division thereof) in 1970.

I. "KWH" means kilowatt hours.

J. "MW" means megawatts.

K. "Person" means any individual, partnership, firm, association, corporation, governmental agency or other legal or business entity.

L. "PX" followed by a number, e.g., "PX 13", means the Plaintiff's Exhibit for Identification so numbered during the taking of depositions in this case.

M. "OEP" means the President's Office of Emergency Preparedness, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of it.

N. "OVEC" means the Ohio Valley Electric Corporation, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of it.

O. "TVA" means the Tennessee Valley Authority, each present and former commissioner, officer, employee, agent or other person acting or purporting to act on behalf of it.

INTERROGATORIES

1. Identify each alleged "action" of Con Edison upon which plaintiff, in whole or in part, bases its claim that Con Edison is "estopped from denying the existence" of "its contract with AEC" (Paragraph 41, Complaint). Identification includes, without limitation, the following information with respect to each such alleged action:

(a) a detailed description of such action;

(b) when such action occurred;

(c) where such action occurred;

(d) the identity of each person acting for Con Edision in such action;

(e) the identity of each person, if any, representing plaintiff in respect to such action;

(f) if the action consisted, in whole or in part, of communication between Con Edison and another person(s), the exact substance of said communication, the means of such communication, the identity of the person(s) to whom said communication was transmitted, and the identity of the person(s) making such communication.

2. Identify each alleged "inaction" of Con Edison upon which plaintiff, in whole or in part, bases its claim that Con Edison is "estopped from denying the existence" of "its contract with AEC" (Paragraph 41, Complaint). Identification includes, without limitation, the following information with respect to each such alleged inaction:

(a) the nature of such inaction and the corresponding actions(s) which plaintiff claims defendant should have taken;

(b) when plaintiff claims defendant should have taken the action(s) specified in (a), supra.

3. Identify every other basis, if any, for plaintiff's claim of "estoppel" other than the actions and inactions set forth in the answer to Interrogatories 1 and 2.

4. (a) State separately with respect to each action, inaction and other basis set forth in plaintiff's answers to Interrogatories 1, 2 and 3 whether plaintiff claims that such action, inaction, or other basis amounted to a representation or concealment by Con Edison of a fact.

(b) State separately with respect to each action, inaction, or other basis as to which plaintiff gives an affirmative answer in (a), supra:

(i) in detail the fact so represented or concealed;

(ii) whether plaintiff claims the fact was represented or concealed;

(iii) what plaintiff's knowledge was as to the truth or falsity of the fact (a) at the time of the alleged representation or concealment and (b) during the period between the time specified in (a) and October 1, 1970;

(iv) identify all efforts by plaintiff to learn the truth or falsity of the fact between July 21, 1970 and October 1, 1970;

(v) identify all information regarding the truth or falsity of the fact obtained by plaintiff between July 21, 1970 and October 1, 1970, including the source and time such information was obtained.

5. (a) State separately with respect to each action, inaction and other basis set forth in your answers to Interrogatories 1, 2 and 3 whether plaintiff claims that plaintiff in any way acted in reliance upon such action, inaction or other basis;

(b) Identify separately with respect to each action, inaction and other basis as to which plaintiff gives an affirmative answer in (a), supra:

(i) the department, agency, division, or other subdivision(s) of plaintiff which plaintiff claims acted in reliance upon such action, inaction or other basis;

(ii) the action taken in reliance;

(iii) the individual(s) who participated in the decision to do the act taken in reliance;

6. Identify every fact upon which plaintiff, in whole or in part, bases plaintiff's claim that there was a contract implied in law between plaintiff and defendant.

7. State the present or last known address of Helen Matty, secretary to George F. Quinn of the AEC in 1970.

8. State the present or last known address, the present or last known business affiliation and the position and employer in 1970 of:

(a) F. Baranowski;

(b) J. P. Abbadessa;

(c) W. R. Voigt;

(d) Secretary to General G.A. Lincoln, Office of Emergency Preparedness in July 1970 and identify said secretary;

(e) the author of OEP 34 and identify said author;

(f) William E. Kriegsman;

(g) E. J. Bloch;

(h) L. W. Meyer;

(i) Milton Shaw;

(j) Clarence Larson;

(k) George Tomlinson;

(l) S. Schwiller;

(m) J. A. Harris;

(n) R. E. Russell;

(o) Robert Thorne;

(p) David Freeman;

(q) R. E. Hollingsworth;

(r) John Ehrlichman;

(s) Peter Flanigan;

(t) Richard Burress;

(u) Fred Weinhold.

9. Identify all persons in the White House or the Executive Office of the President with whom William E. Kriegsman discussed the release of 200 MW by AEC to assist Con Edison or discussed any

additional costs which might result from such release or discussed imposition of a "surcharge" upon anyone as a result thereof.

10. Identify all instances in the years 1968, 1969, and 1970 (up through and including May 5, 1970) in which AEC reduced its power consumption from any of its power suppliers at the request of the supplier or other party.

(a) State the amount of the reduction (in MW).

(b) State the total power consumption of the AEC's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

(c) Identify the power supplier or other party initiating such request for reduction and the reason(s) for such request as expressed to plaintiff.

(d) State whether, in connection with such reduction, the power supplier or other party either at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

(e) State whether, in connection with such reduction, the power supplier or other party supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the quantity of such power premium or amount of such surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier or other party for the same;

(iii) state how the power premium or surcharge was calculated.

(iv) state the reasons for such power premium or surcharge.

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses, efficiency losses or other losses as a result of the reduction? If so, how much?

(vi) did plaintiff in fact suffer any mixing losses, efficiency losses or other losses as a result of the reduction? If so, calculate in detail the quantity of the same.

(f) State whether, during the period of

such reduction, equipment in the AEC's gaseous diffusion plants was turned off, broke down or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

11. Identify all instances in the years 1968, 1969, and 1970 (up through and including May 5, 1970) in which AEC reduced its power consumption from any of its power suppliers at its own request and with the approval of the supplier.

(a) State the amount of the reduction (in MW).

(b) State the total power consumption of the AEC's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

(c) Identify plaintiff's reasons for seeking reduction of the power and identify the power supplier involved.

(d) State whether, in connection with such reduction, the power supplier at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

(e) State whether, in connection with such reduction, the power supplier supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the amount of such power or surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier for the same;

(iii) state how the power premium or surcharge was calculated;

(iv) state the reasons for such power premium or surcharge;

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses or efficiency losses as a result of the reduction? If so, how much?

(vi) did plaintiff in fact suffer any mixing losses or efficiency losses, as a result of the reduction? If so, calculate in detail the quantity of the same.

(f) State whether, during the period of

such reduction, equipment in the AEC's gaseous diffusion plants was turned off, broke down, or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

12. (a) Identify, for the period of 1967-1972, the manner and procedure by which the "Table for Enriching Services" was computed, changed, or revised. Identify each "Table" in effect and all changes and revisions in the "Table" made during this period.

(b) What costs were taken into account in computing, changing or revising said "Table"?

(c) Were the computations, changes and revisions made on the basis of past experience, on future projections, or some other basis? If some other basis, identify.

13. (a) Were any efficiency, mixing or other losses caused by the AEC's 450 MW power reduction commencing around the beginning of July, 1970 passed on to the AEC's enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

14. (a) Were any efficiency, mixing or other losses caused by the AEC's 200 MW power reduction commencing on or about July 27, 1970 passed on to the [illegible] enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how, and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

15. (a) Were any efficiency, mixing or other losses caused by the AEC's reduction of TVA power in January 1970 passed on to the AEC's enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how, and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

(d) Identify all persons at AEC who derived, calculated or approved the "power premium" to be paid by TVA in connection with this incident (See, e.g., AEC 82).

16. (a) Could any efficiency, mixing or other losses in Interrogatories 12, 13, and 14, above, have been passed on to AEC's enrichment services customers by computing, changing, or revising the "Table" or by amending the contracts with the enrichment customers? If no, explain why not.

(b) Identify the types of contracts which were in effect between AEC and its enrichment customers in 1970 and the terms and conditions of such contracts. Samples of such contracts may be submitted in lieu of detailed description of them.

17. State whether the policy of AEC that power reductions should not result in a fiscal year in an over-all loss of production or increased cost to AEC described by Mr. Quinn (Transcript 38) was

(a) formal or informal;

(b) in writing;

(c) state when this policy originated;

(d) state by whom it was originated, e.g., by the AEC Commissioner or by members of the staff, and if so, by whom on the staff.

18. State when and how the subject of a possible surcharge on any power reduction taken under the May 5 plan arose at AEC.

(a) State who first raised the subject.

(b) Identify all conversations and discussions of any nature within AEC, or between AEC personnel and any other persons, regarding the calculation or methods of calculation of a surcharge on power reductions taken under the May 5 plan, including, but not limited to:

(i) the identity of the participants and any other persons present or otherwise able to listen to such conversations and discussions (as by telephone);

(ii) time and place;

(iii) the substance of the conversation and discussions;

(iv) what action, if any, was taken as a result of such conversations and discussions; and

(v) identify all documents relating or referring to such conversations and discussions.

19. Identify all methods for computing a surcharge against Con Edison or the recipients of the 450 MW release discussed or considered by plaintiff and, for each such method:

(a) state the assumptions and means of deriving a figure by such method;

(b) state the figure(s) calculated for the surcharge by plaintiff under such method, or the figure(s) which such method yields;

(c) identify when and by whom such method was considered;

(d) if the method and figure(s) resulting therefrom were not adopted by plaintiff, indicate why not and who decided against their adoption.

20. (a) Define "cascade mixing losses."

(b) Calculate in detail what plaintiff contends were the actual cascade mixing losses incurred because of the 200 MW release of power beginning July 26-27, 1970.

(c) Identify the sources of the numerical data used in calculation of (b), above.

(d) Define "extraordinary maintenance".

(e) Calculate in detail what plaintiff contends were the actual extraordinary maintenance costs incurred because of the 200 MW release of power beginning July 26-27, 1970.

(f) Identify the sources of the numerical data used in calculation of (e), above.

21. (a) Define "unit cost of production."

(b) Calculate in detail what plaintiff contends was the actual increase in unit cost of production caused by the 200 MW release of power beginning July 26-27, 1970

(i) from July 26, 1970 through August 31, 1970, and

(ii) from September 1, 1970 to October 1, 1970.

(c) Identify the sources of the numerical data used in calculation of (b), above.

22. (a) State in detail how plaintiff computed the figure of $1,713,017.50 prayed for in the Complaint (Paragraph 36).

(b) State by whom the figure was calculated.

(c) State each component of alleged damages (e.g., mixing losses), together with the quantity of same and showing how the same was calculated.

23. Identify separately with respect to each of the below-described documents all persons who participated in the preparation, derivation, or approval of the following documents:

(a) AEC 49
(b) AEC 50
(c) AEC 54
(d) AEC 56
(e) AEC 66
(f) AEC 71
(g) AEC 81
(h) AEC 94
(i) AEC 95
(j) AEC 96
(k) AEC 97
(l) AEC 98
(m) AEC 99
(n) AEC 103
(o) AEC 107
(p) AEC 109
(q) AEC 167
(r) AEC 168
(s) AEC 205
(t) AEC 219
(u) AEC 222
(v) DX 126-A
(w) DX 127
(x) DX 131

(y) the documents contained in Tab F to the letter of Mr. Richter, in response to defendant's letter requests of May 5 and May 12, 1975.

24. (a) In the years 1969, 1970 and 1971, state by month the quantity (in separative work units) of the monthly production of "pre-production" separative work units to be placed in inventory. (See Quinn transcript 28).

(b) State in detail how and upon what bases the price for sale of pre-production, inventoried enriched uranium was determined by plaintiff in the years 1969 through 1971.

25. As to the separative work units produced in June, July, August, September and October of 1970 at AEC's gaseous diffusion plants, state separately by month:

(a) for separative work units sold under then existing contracts or otherwise sold at or about the time of production, the date of sale, the sale price, and the name of the purchaser;

(b) for separative work units placed into inventory or otherwise to be sold at a later date, whether they were in fact later sold, and, if so, the date of sale, the sale price, and the name of the purchaser.

26. State fully and in detail how plaintiff calculates its alleged damages under the theory of contract implied in law. (Count 4).

27. (a) Identify each person at AEC's Oak Ridge facilities or elsewhere who derived or calculated a surcharge figure of approximately 3 (or 3.4) mills

with respect to the 200 MW drop on or about July 26-27, 1970.

(b) Identify the documents in Tab F to Mr. Richter's letter of May 20, 1976 which refer to the surcharge figure in (a), above.

(c) Identify the author of Exhibit A, annexed hereto.

28. Identify all efforts made by plaintiff to obtain from OVEC the benefit of a "surcharge" (whether by crediting against AEC's monthly bills or otherwise) of 5.41 mills/KWH as provided for in AEC's contract modification with OVEC dated July 30, 1970 (AEC 57).

29. State whether the losses allegedly incurred because of the release of the 200 MW were taken into account in any financial statements of the plaintiff. If so, identify such financial statements.

30. Identify all documents in plaintiff's possession or control relating to the answer to each Interrogatory or subparagraph thereof, by indicating the nature of each such document (*e.g.*, letter, memo, etc.), author, date, and the Interrogatories and subparts thereof to which it relates. If a document

has already been identified as a "PX", "DX", "AEC", "OEP", or "CE" document, it is sufficient to identify the document as such.

Date: New York, New York
August 27, 1976

A Member of the Firm
SHEARMAN & STERLING
Attorneys for defendant
Consolidated Edison
Company of New York, Inc.
53 Wall Street
New York, New York 10005
(212) 483-1000

To:

ROBERT B. FISKE, JR.
United States Attorney for the
Southern District of New York
(Attention: Charles Franklin Richter, Esq.)
Attorney for plaintiff
United States Courthouse Annex
One St. Andrew's Plaza
New York, New York 10007
(212) 791-1972

[illegible] 12 [illegible]

A 1354

Cost [illegible] 28.573

KWH's 1,032,240

per KWH ~~[illegible]~~ 27.6806

Increase 7.4773

Incr. x KWH's $7,718

MWH (9 [illegible]) 2,539,200 ~~331,200~~

per MWH 3.04

.42

.28

3.74

3.04

.33

3.37

Misc 15 × 1150 = 17250 × ~~20.33~~ 20.2033 = 348500

348500 ÷ 828000 = .42

797000

Maint 200 × 1150 = 230,000

230000 ÷ 828000 = .28 .14

EXHIBIT A

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

-------------------------------------x

UNITED STATES OF AMERICA, :

Plaintiff, : 74 Civ. 3121
L.W.P.

-against- :

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., :

Defendant. :

-------------------------------------x

DEFENDANT'S REQUEST FOR PRODUCTION OF DOCUMENTS PURSUANT TO RULE 34--SET NO. 2

PLEASE TAKE NOTICE that, pursuant to Rule 34, Federal Rules of Civil Procedure, defendant Consolidated Edison Company of New York, Inc. ("Con Edison"), by its undersigned attorneys, requests that plaintiff United States of America produce at the offices of Shearman & Sterling, 53 Wall Street, New York, New York ✓ 10005, on September 27, 1976, at 10:00 a.m. and permit Con Edison to inspect and copy the following documents (as defined in defendant's Interrogatories to Plaintiff--Set No. 1) now in defendant's possession, custody or control. It is requested that the paragraph(s) or subparagraph(s) of the interrogatories in response to which each document was identified and in response to which, in connection with these requests, each document is produced be indicated.

DOCUMENTS TO BE PRODUCED

Each document requested to be identified in Defendant's Interrogatories to Plaintiff--Set No. 1.

Dated: New York, New York
August 27, 1976

SHEARMAN & STERLING

By
A Member of the Firm
Attorneys for Defendant
Consolidated Edison
Company of New York, Inc.
53 Wall Street
New York, New York 10005
(212) 483-1000

TO: ROBERT B. FISKE, JR., ESQ.
United States Attorney for the
Southern District of New York
(Attn: Charles F. Richter, Esq.)
Attorney for Plaintiff
United States Courthouse Annex
One St. Andrew's Plaza
New York, New York 10007
(212) 791-1972

(73)

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

-----------------------------------x

UNITED STATES OF AMERICA :

Plaintiff, :

-against- :

CONSOLIDATED EDISON COMPANY :
OF NEW YORK, INC., :

Defendant. :

-----------------------------------x

PLAINTIFF'S ANSWERS TO DEFENDANT'S INTERROGATORIES -- SET NO. 1

74 Civ. 3121 (LWP)

Plaintiff answers the interrogatories contained in Defendant's Interrogatories to Plaintiff - Set No. 1 as follows:

INTERROGATORY NO. 1

Interrogatory: Identify each alleged "action" of Con Edison upon which plaintiff, in whole or in part, bases its claim that Con Edison is "estopped from denying the existence" of "its contract with AEC" (Paragraph 41, Complaint). Identification includes, without limitation, the following information with respect to each such alleged action:

(a) a detailed description of such action;

(b) when such action occurred;

(c) where such action occurred;

(d) the identity of each person acting for Con Edison in such action;

(e) the identity of each person, if any, representing plaintiff in respect to such action;

(f) if the action consisted, in whole or in part, of communication between Con Edison and another person(s), the exact substance of said communication, the means of such communication, the identity of the person(s) to whom said communication was transmitted, and the identify of the person(s) making such communication.*

Answer: The primary actions upon which plaintiff bases its claim that defendant is estopped from denying the existence of its contract with plaintiff are:

1. The telephone conversation between Charles Luce of Con Edison and George Quinn of the AEC on July 24, 1970, in which Mr. Quinn offered on behalf of the plaintiff to relinquish the AEC's contract rights to 200 MW of power from TVA and OVEC. The substance of the conversation was set forth by Mr. Quinn at his deposition taken by plaintiff in this action and in his affidavit submitted in opposition to defendant's motion for summary judgment.

2. Arrangements made by Con Edison for the transmission of such power. Based upon discovery taken from defendant, such arrangements were apparently made by Arthur Hauspurg of Con Edison with Mr. Nagel of the American Electric Power Company and Mr. Chambers of TVA on July 24, 1970.

3. Con Edison's acceptance of the 200 MW of power, and therefore of the benefit of plaintiff's relinquishment of its contract rights, between July 27 and September 30, 1970.

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*Because of the large number of persons referred to in these answers to interrogatories and the fact that many of them are already known to defendant, plaintiff will not "identify" each such person to the extent requested by defendant. However, plaintiff will to the best of its ability "identify" any such person upon specific request from defendant.

Interrogatory No. 2

Interrogatory: Identify each alleged "inaction" of Con Edison upon which plaintiff, in whole or in part, bases its claim that Con Edison is "estopped from denying the existence" of "its contract with AEC" (Paragraph 41, Complaint). Identification includes, without limitation, the following information with respect to each such alleged inaction:

(a) the nature of such inaction and the corresponding action(s) which plaintiff claims defendant should have taken;

(b) when plaintiff claims defendant should have taken the action(s) specified in (a), *supra*.

Answer: Plaintiff contends that the actions of Con Edison described in answer to Interrogatory No. 1 are sufficient to estop defendant from denying the existence of a contract. It may also be relevant, however, that Con Edison: (1) failed to inform plaintiff, either before or during the time it knowingly received the benefit of plaintiff's relinquishment of its contract rights to 200 MW of power, that it would not pay the costs incurred by plaintiff as a result of such relinquishment which was a condition of the offer made by Mr. Quinn on behalf of plantiff in his conversation with Mr. Luce on July 24, 1970, and (2) failed to stop taking the power after it had learned of the specific amount of the surcharge calculated by plaintiff.

Interrogatory No. 3

Interrogatory: Identify every other basis, if any, for plaintiff's claim of "estoppel" other than the actions and inactions set forth in the answer to Interrogatories 1 and 2.

Answer: As of the present time, plaintiff knows of no other basis.

Interrogatory No. 4

Interrogatory: (a) State separately with respect to each action, inaction and other basis set forth in plaintiff's answers to Interrogatories 1, 2 and 3 whether plaintiff claims that such action, inaction, or

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other basis amounted to a representation or concealment by Con Edison of a fact.

(b) State separately with respect to each action, inaction, or other basis as to which plaintiff gives an affirmative answer in (a), supra:

(i) in detail the fact so represented or concealed;

(ii) whether plaintiff claims the fact was represented or concealed;

(iii) what plaintiff's knowledge was as to the truth or falsity of the fact (a) at the time of the alleged representation or concealment and (b) during the period between the time specified in (a) and October 1, 1970;

(iv) identify all efforts by plaintiff to learn the truth or falsity of the fact between July 21, 1970 and October 1, 1970;

(v) identify all information regarding the truth or falsity of the fact obtained by plaintiff between July 21, 1970 and October 1, 1970, including the source and time such information was obtained.

Answer: With respect to the actions and inactions described in the answers to Interrogatories 1, 2 and 3 plaintiff is not currently aware of any concealment of a fact by Con Edison. As to representations of facts by Con Edison, the only apparently applicable action or inaction would be statements made by Mr. Luce in his July 24, 1970, telephone conversation with Mr. Quinn. These statements were described by Mr. Quinn at his deposition and in his affidavit submitted in opposition to defendant's motion for summary judgment. Considering the type of actions and inactions involved, sections (iii), (iv) and (v) of this interrogatory appear to be inapplicable.

Interrogatory No. 5

Interrogatory: (a) State separately with respect to each action, inaction and other basis set forth in your answers to Interrogatories 1, 2, and 3 whether plaintiff claims that plaintiff in any way acted in reliance upon such action, inaction or other basis;

(b) Identify separately with respect to each action, inaction and other basis as to which plaintiff gives an affirmative answer in (a), *supra*:

(i) the department, agency, division, or other subdivision(s) of plaintiff which plaintiff claims acted in reliance upon such action, inaction or other basis;

(ii) the action taken in reliance;

(iii) the individual(s) who participated in the decision to do the act taken in reliance.

Answer: (a) Plaintiff's reliance on Con Edison's actions and inactions described above consisted in relinquishing its contract rights to 200 MW of power from TVA and OVEC and incurring substantial costs as a result.

(b) (i) the AEC (now ERDA)

(ii) see the answer to 5(a) above

(iii) Mr. Edward Bloch, the then Acting General Manager of the AEC, and the then Commissioners of the AEC who were: Glenn Seaborg, James Ramey, Wilfrid Johnson, Theos Thompson and Clarence Larson.

Interrogatory No. 6

Interrogatory: Identify every fact upon which plaintiff, in whole or in part, bases plaintiff's claim that there was a contract implied in law between plaintiff and defendant.

Answer: Plaintiff relies upon the same facts described above in connection with its claim that defendant is estopped from denying the existence of a contract for its claim that there is a contract implied in law between plaintiff and defendant.

Interrogatory No. 7

Interrogatory: State the present or last known address of Helen Matty, secretary to George F. Quinn of the AEC in 1970.

Answer: 19018 Mills Choice Road
Gaithersburg, Maryland

Interrogatory No. 8

Interrogatory: State the present or last known address, the present or last known business affiliation and the position and employer in 1970 of:

(a) F. Baranowski;

(b) J. P. Abbadessa;

(c) W. R. Voigt;

(d) Secretary to General G. A. Lincoln,

Office of Emergency Preparedness in July 1970 and identify said secretary;

(e) the author of OEP 34 and identify said author;

(f) William E. Kriegsman;

(g) E.J. Bloch;

(h) L. W. Meyer;

(i) Milton Shaw;

(j) Clarence Larson;

(k) George Tomlinson;

(l) S. Schwiller;

(m) J. A. Harris;

(n) R. E. Russell;

(o) Robert Thorne;

(p) David Freeman;

(q) R. E. Hollingsworth;

(r) John Ehrlichman;

(s) Peter Flanigan;

(t) Richard Burress;

(u) Fred Weinhold.

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Answer: (a) Address: ERDA, Washington, D.C.
Position in 1970: Director, Division of Production
Employer in 1970: AEC

(b) Address: International Atomic Energy
Post Office Box 645
A-1011 Vienna, Austria
Position in 1970: Controller
Employer in 1970: AEC

(c) Address: ERDA, Washington, D.C.
Position in 1970: Deputy Director, Division of Production
Employer in 1970: AEC

(d) Address: 2939 Van Ness Street, N.W.
Washington, D.C.
Position in 1970: Secretary to General G. A. Lincoln
Employer in 1970: Office of Emergency Preparedness

(e) Address: ERDA
Oak Ridge, Tennessee
Position in 1970: Administrative Assistant
Employer in 1970: AEC

(f) Address: Arthur D. Little, Inc.
1735 I Street, N.W.
Washington, D.C.
Position in 1970: Staff Assistant and Staff Member, Domestic Council
Employer in 1970: The White House

(g) Address: 5524 Devon Road
Bethesda, Maryland
Position in 1970: Deputy General Manager
Employer in 1970: AEC

(h) Address: ERDA, Washington, D.C.
Position in 1970: Power & Utilities Engineer
Employer in 1970: AEC

(i) Address: Suite 302
1156 15th Street, N.W.
Washington, D.C.
Position in 1970: Director, Division of Reactor Development
Employer in 1970: AEC

(j) Address: 6514 Bradley Boulevard
Bethesda, Maryland
Position in 1970: Commissioner
Employer in 1970: AEC

(k) Address:
Position in 1970: Deputy Chief, Bureau of Power
Employer in 1970: Federal Power Commission

(l) Address: Nuclear Regulatory Commission, Washington, D.C.
Position in 1970: Director, Division of Public Information
Employer in 1970: AEC

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(m) Address: Nuclear Regulatory Commission, Washington, D.C.
Position in 1970: Director, Division of Public Information
Employer in 1970: AEC

(n) Address: Unknown
Position in 1970: Management Specialist, Division of Production
Employer in 1970: AEC

(o) Address: Manager, San Francisco Operations Office
1335 Broadway, Wells Fargo Building
Oakland, California
Position in 1970: Assistant to AGM for Plans & Production
Employer in 1970: AEC

(p) Address: Energy Policy & Planning Office
Executive Office of the President
Position in 1970:
Employer in 1970: Executive Office of the President

(q) Address: Consultant, Bechtel
Post Office Box 3965
San Francisco, California
Position in 1970: General Manager
Employer in 1970: AEC

(r) Address: Federal Prison Camp
Safford, Arizona
Position in 1970:
Employer in 1970: White House

(u) Address: ERDA, Washington, D.C.
Position in 1970: Technical Assistant
Employer in 1970: Office of Science and Technology
Executive Office of the President

Interrogatory No. 9

Interrogatory: Identify all persons in the White House or the Executive Office of the President with whom William E. Kriegsman discussed the release of 200 MW by AEC to assist Con Edison or discussed any additional costs which might result from such release or discussed imposition of a "surcharge" upon anyone as a result thereof.

Answer: Mr. Kriegsman is no longer employed by plaintiff and plaintiff has no information as to the conversations requested in this interrogatory other tnan what might be reflected in the documents which plaintiff has previously produced to defendant.

Interrogatory No. 10

Interrogatory: Identify all instances in the years 1968, 1969, and 1970 (up through and including May 5, 1970) in which AEC reduced its power consumption from any of its power suppliers at the request of the supplier or other party.

Answer: The only reduction of the AEC power level during the stated time period at the request of either an AEC supplier or a third party to meet a power or fuel shortage began on January 8, 1970, and extended until January 20, 1970. This reduction was made at the request of the TVA and effected at the Oak Ridge and Paducah Gaseous Diffusion Plants.*

Interrogatory No. 10(a): State the amount of the reduction (in MW).

Answer: The reduction was 350 MW.

---

*This answer assumes that the interrogatory is directed at reductions similar to the one being litigated in this action.

Interrogatory No. 10(b): State the total power consumption of the AEC's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

Answer: Prior to this power reduction, the consumption level at the three gaseous diffusion plants was 1900 MW, during the reduction the power level at these plants was 1550 MW, and immediately after the restoration of the power reduced the power level was 1900 MW.

Interrogatory No. 10(c): Identify the power supplier or other party initiating such request for reduction and the reason(s) for such request as expressed to plaintiff.

Answer: This reduction was requested by TVA and, as TVA informed plaintiff, necessitated by extremely cold weather which created a system emergency for TVA.

Interrogatory No. 10(d): State whether, in connection with such reduction, the power supplier or other party either at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

Answer: TVA supplied additional power at some other time equivalent to the power reduced in addition to the "premium" described in (e) below.

Interrogatory No. 10(e): State whether, in connection with such reduction, the power supplier or other party supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the quantity of such power premium or amount of such surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier or other party for the same;

(iii) state how the power premium or surcharge was calculated;

(iv) state the reasons for such power premium or surcharge;

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses, efficiency losses or other losses as a result of the reduction: If so, how much?

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Interrogatory 11

Interrogatory: Identify all instances in the years 1968, 1969, and 1970 (up through and including May 5, 1970) in which AEC reduced its power consumption from any of its power suppliers at its own request and with the approval of the supplier.

(a) State the amount of the reduction (in MW).

(b) State the total power consumption of the AEC's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

(c) Identify plaintiff's reasons for seeking reduction of the power and identify the power supplier involved.

(d) State whether, in connection with such reduction, the power supplier at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

(e) State whether, in connection with such reduction, the power supplier supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the amount of such power or surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier for the same;

(iii) state how the power premium or surcharge was calculated;

(iv) state the reasons for such power premium or surcharge;

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses or efficiency losses as a result of the reduction? If so, how much?

(vi) did plaintiff in fact suffer any mixing losses, efficiency losses or other losses as a result of the reduction? If so, calculate in detail the quantity of the same.

Answer: A "power premium" was paid.

(i) The total power premium paid by TVA was 9830 MWH.

(ii) The power reduction was the subject of a verbal agreement between Mr. S. R. Sapirie of the AEC and Mr. G. Wessenauer of TVA, consummated on January 8, 1970 and confirmed by letter from Wessenauer to Sapirie dated January 8, 1970. This agreement was later formally confirmed by letter agreement from Sapirie to Watson dated January 20, 1970 entitled "Temporary Reduction in Power Deliveries at Oak Ridge and Paducah." The amount of power premium was agreed by letter from Sapirie to Mr. J. E. Watson of TVA dated January 22, 1970 and entitled "Repayment of Power to AEC."

(iii) AEC calculations made at that time are not available and plaintiff does not know the computations which led to the premium charged to TVA.

(iv) The power premium was required to compensate the AEC for production losses sustained as a result of this emergency reduction.

(v) Yes. A precise method of computing the power premium had not been developed at the time in question. Calculations made as a result of these interrogatories indicate that the loss would have been the equivalent of a power premium of approximately 20,000 MWH.

(vi) AEC suffered the equivalent of approximately 10,000 MWH of net losses as a result of this reduction, computed as follows:

Total loss suffered	20,000 MWH
Less premium paid	9,830
Net loss suffered	10,170 MWH

Interrogatory No. 10(f): State whether, during the period of such reduction, equipment in the AEC's gaseous diffusion plants were turned off, broke down or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

__Answer__: There were equipment failures during the period of the reduction of power. However, which of these failures were caused by the reduction cannot be determined simply by listing all actual failures that occurred.

During the operation of a gaseous diffusion plant, equipment fails periodically for any of a number of reasons. While plaintiff's many years of experience operating such plants have shown that the occurrence of equipment failures increases during changes in power levels, it cannot be determined for certain that particular equipment failures resulted from a power level change as opposed to some other cause, although an expert may be able in some particular circumstances to determine with a high degree of certainty whether a specific equipment failure was the result of a power change. Undoubtedly, the same would be true for determining with certainty the cause of equipment failures in electrical generating plants, such as Con Edison's Ravenswood facility, that occur during times of changes in power levels.

The most reliable method for determining the effect of changes in power levels upon equipment is based upon statistical analyses examining the rate of equipment failures during changes in power levels as compared to times of level power usage. In light of this, plaintiff contends that the request contained in this interrogatory to identify the equipment which actually failed is irrelevant to this action. Moreover, such an identification would require examination of extensive business records maintained by plaintiff. However, to the extent they are unclassified, these records are available for inspection by counsel for defendant.

(vi) did plaintiff in fact suffer any mixing losses or efficiency losses, as a result of the reduction? If so, calculate in detail the quantity of the same.

(f) State whether, during the period of such reduction, equipment in the AEC's gaseous diffusion plants was turned off, broke down, or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

Answer: It is assumed that this interrogatory is not intended to refer to power reductions effected during the stated time period as a result of contractual decisions made several years previously and in implementation of a long-term operating program, but rather only to temporary reductions initiated and effected during the stated time period. The only such reduction of AEC power level made during the stated time period at its own request started on June 15, 1969, and extended until March 1, 1970. The reduction was made at the Portsmouth Gaseous Diffusion Plant where OVEC is the power supplier.

(a) The reduction was 100 MW.

(b) Prior to this reduction the consumption level at the three gaseous diffusion plants was 2215 MW. During this power reduction the consumption level of these plants was:

2115 MW - June 15, 1969 - July 1, 1969
1900 MW - July 1, 1969 - January 7, 1970
1550 MW - January 8, 1970 - January 19, 1970
1900 MW - January 20, 1970 - January 25, 1970
1930 MW - January 26, 1970 - March 1, 1970

Immediately after restoration of the power reduced, the power level at the three gaseous diffusion plants was 2030 MW.

(c) The power was reduced in order to keep expenditures within appropriated funds. As noted above, the power supplier was OVEC.

(d) Charges for AEC's power were reduced to reflect lower consumption levels.

(e) No such surcharge or power premium was paid.

(f) See the answer to interrogatory No. 10(f).

Interrogatory No. 12

Interrogatory: (a) Identify, for the period of 1967-1972, the manner and procedure by which the "Table for Enriching Services" was computed, changed, or revised. Identify each "Table" in effect and all changes and revisions in the "Table" made during this period.

(b) What costs were taken into account in computing, changing or revising said "Table"?

(c) Were the computations, changes and revisions made on the basis of past experience, on future projections, or some other basis? If some other basis, identify.

Answer: The "Table for Enriching Services" that is included in the AEC's enrichment services criteria is attached as Exhibit 1 hereto. This table is not used in computing the charge for enriching uranium. Rather it is utilized to show the amounts of uranium and separative work required per unit of desired enriched uranium. Separative work is a measure of that effort required to enrich uranium.

Question 12 appears to be addressing the charge for separative work for the 1967-1972 period. The "Private Ownership of Special Nuclear Materials Act" (Public Law 88-489) provided for termination of mandatory Government ownership of special nuclear materials and for eventual mandatory private ownership of power reactor fuels. The Act authorized AEC to begin the sale of uranium enrichment services beginning January 1, 1969. Prior to that date all enriched uranium distributed to domestic licenses was leased by AEC.

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Section 161v of the Atomic Energy Act requires that AEC's charge for enrichment services shall be on a basis of recovery of the Government's costs over a reasonable period of time. The section also requires AEC to establish criteria, in writing, setting forth the terms and conditions under which uranium enrichment services will be made available and that the proposed criteria be submitted to the Joint Committee on Atomic Energy.

On July 1, 1966, AEC submitted the criteria to the Joint Committee. The Joint Committee approved the criteria which contained the following sections regarding separative work pricing:

> "(2) The Act requires that such charges provide reasonable compensation to the Government. AEC's charge for enriching services will be established on a basis that will assure the recovery of appropriate Government costs projected over a reasonable period of time. The cost of separative work includes electric power and all other costs, direct and indirect, of operating the gaseous diffusion plants; appropriate depreciation of said plants; and a factor to cover applicable costs of process development, AEC administration and other Government support functions, and imputed interested on investment in plant and working capital. During the early period of growth of nuclear power, there will be only a small civilian demand on the large AEC diffusion plants. These plants were originally constructed for national security purposes, but will be utilized in meeting future civilian requirements. In this interim period of low plant utilization, the Commission has determined that the costs to be charged to the separative work produced for civilian customers will exclude those portions of the costs attributable to depreciation and interest on plant investment which are properly allocable to plant in standby and to excess capacity.
>
> "(3) Projections of supply and demand over a reasonable time period will be used in establishing a plan for diffusion plant operations. This plan will be the basis for establishing an average charge for separative work over the period involved, which charge will be kept as stable as possible as operating plans are periodically updated. Under such operating plans, AEC will at times be preproducing enriched uranium. Interest on the separative work costs of any such preproduced inventories will be factored into the average separative work charges."

Based on the above criteria, AEC announced on September 21, 1967, that the actual charge for uranium enrichment services would be $26 a unit of separative work. The $26 charge was computed principally by estimating the costs items over the Fiscal Year 1966 through Fiscal Year 1975 and dividing by the estimated sales for the same period, thus arriving at an average charge. Added to this cost was a margin of 15 percent to cover contingencies. The $26 charge was effective from January 1, 1969 to February 21, 1971.

On June 11, 1970, AEC notified the Joint Committee of a proposed change in the criteria which would change the basis for computing the charge for enriched services from a cost-recovery basis to a commercial basis. The proposed criteria stated:

> "Subpara. (2) - The Act requires that such charges provide reasonable compensation to the Government. In recognition of the commercial nature of the primary market to be served, and of the fact that the existing facilities were constructed primarily for non-commercial markets, AEC's charge for enriching services will be established at the level estimated to be equivalent to the charge for separative work performed in new uranium enrichment facilities designed, constructed and operated primarily to meet commercial markets, using debt-equity ratios, rates of return on investment, and appropriate allowances for Federal Corporate income taxes, state and local taxes and insurance deemed by the Commission to be appropriate for a private industrial enriching enterprise.
>
> "Subpara. (3) - AEC will review periodically the charge for enriching services on the basis of: (a) updated projections of the cost of separative work produced in a new enriching plant, and (b) the cost of money in the private sector of the economy. As a result of such reviews, AEC will make any appropriate revisions in the charge for enriching services in accordance with subparagraph 5. (c)(2), but within the limitations of subparagraph 5(d)."

The resulting charge was $28.70 per separative work unit. This charge was effective from February 22, 1971 to November 14, 1971.

The Atomic Energy Act of 1954 was amended on December 19, 1970 (P.L. 91-560), providing that the charge for enrichment services "shall be on a basis of recovery of the Government's costs over a reasonable period of time." Although this amendment foreclosed charging on a commercial basis the $28.70 charge was retained until a new charge based on the amendment could be implemented. A change in the charge requires 180 days notice.

AEC retained the $28.70 charge because it met the legal requirements of the Act at the time the charge was announced and the additional revenues to be derived from the $28.70 charge until a new cost-recovery charge could be implemented were necessary to recover appropriate Government costs.

On December 21, 1970, AEC announced that the charge for separative work based on the amendment would be $32.00 per separative work unit. The $32 charge was based on the same criteria as the $26 charge. The charges differ primarily in that the assumptions concerning operating and cost characteristics of the plants and requirements were updated to reflect current estimates as of the time of determination of the proposed $32 charge.

Interrogatory No. 13

Interrogatory: (a) Were any efficiency, mixing or other losses caused by the AEC's 450 MW power reduction commencing around the beginning of July 1970 passed on to the AEC's enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

Answer: (a) Yes

(b) The Atomic Energy Act requires that the costs for enrichment service be recovered. The increased costs attributable to the reduction were reflected in subsequent revisions to the AEC charge for separative work.

(c) Not applicable.

Interrogatory No. 14

Interrogatory: (a) Were any efficiency, mixing or other losses caused by the AEC's 200 MW power reduction commencing on or about July 27, 1970 passed on to the AEC's enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how, and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

Answer: (a) Yes.

(b) See the answer to Interrogatory 13(b).

(c) Not applicable.

Interrogatory No. 15

Interrogatory: (a) Were any efficiency, mixing or other losses caused by the AEC's reduction of TVA power in January 1970 passed on to the AEC's enrichment services customers in any fashion?

(b) If the answer to (a) is affirmative, explain in detail how, and to what extent this was done.

(c) If the answer to (a) is negative, explain why it was not done.

Answer: (a) Yes.

(b) As shown in plaintiff's answer to Interrogatory No. 10(e)(V) above, recent calculations have shown that the power premium received from TVA was insufficient to cover all increases in costs. To this extent then such unrecovered costs were passed on to enrichment customers as explained in plaintiff's response to Interrogatory 13(b) above.

(c) Not applicable.

(d) R. C. Armstrong
J. W. Morgan
G. T. Arnold
S. R. Sapirie
H. D. Fletcher
J. C. Winkles

Interrogatory No. 16

Interrogatory: (a) Could any efficiency, mixing or other losses in Interrogatories 12, 13, and 14, above, have been passed on to AEC's enrichment services customers by computing, changing, or revising the "Table" or by amending the contracts with the enrichment customers? If no, explain why not.

(b) Identify the types of contracts which were in effect between AEC and its enrichment customers in 1970 and the terms and conditions of such contracts. Samples of such contracts may be submitted in lieu of detailed description of them.

Answer: (a) No. As explained in plaintiff's response to Interrogatory 12, the "Table of Enrichment Services" is not used to determine the charge of separative work. The contracts for enrichment customers specify the amount of separative work to be purchased without fixing the exact amount of the charge for such separative work. As provided in such contracts, these charges are established from time to time by ERDA as described in the answer to Interrogatory No. 12 above.

(b) Attached as Exhibit 2 are samples of the three general types of contracts in effect between AEC and uranium enrichment customers during the year 1970. The contracts are commonly referred to as a Firm Quantities Contract, an In Situ Contract and a Requirements Contract.

Interrogatory No. 17

Interrogatory: State whether the policy of AEC that power reductions should not result in a fiscal year in an over-all loss of production or increased cost to AEC described by Mr. Quinn (Transcript 38) was

(a) formal or informal;

(b) in writing;

(c) state when this policy originated;

(d) state by whom was originated, e.g., by the AEC Commissioner or by members of the staff, and if so, by whom on the staff.

Answer: In response to the TVA request for power in January 1970, a decision was made by the AEC that, in appropriate circumstances, the AEC would relinquish its contract right to limited amounts of power if requested by an AEC power supplier as long as the power supplier provided the equivalent amount of power at a later time plus a "power premium" so that there would be no overall loss of production by the AEC or any increased cost to the AEC as a result of the relinquishment.

(a) This arrangement was not a formal policy.

(b) It was not in writing.

(c) The arrangement was originated at the time of the TVA request in January 1970.

(d) Upon information and belief, it was originated by S. R. Sapirie and his staff.

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Interrogation No. 18

Interrogatory: State when and how the subject of a possible surcharge on any power reduction taken under the May 5 plan arose at AEC.

(a) State who first raised the subject.

(b) Identify all conversations and discussions of any nature within AEC, or between AEC personnel and any other persons, regarding the calculation or methods or calculation of a surcharge on power reductions taken under the May 5 plan, including, but not limited to:

(i) the identity of the participants and any other persons present or otherwise able to listen to such conversations and discussions (as by telephone);

(ii) time and place;

(iii) the substance of the conversation and discussions;

(iv) what action, if any, was taken as a result of such conversations and discussions; and

(v) identify all documents relating or referring to such conversations and discussions.

Answer: (a) Upon information and belief, the subject was first raised by either S. R. Sapirie or a member of his staff.

(b) Because of the long passage of time, plaintiff is unable to reconstruct the conversations and discussions requested. To the best of plaintff's knowledge, the only information in plaintiff's possession that may relate to the identification of any such conversation or discussion would be contained in the documents which plaintiff has already made available to defendant pursuant to defendant's request for production - set No. 1, dated August 16, 1974.

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Interrogatory No. 19

Interrogatory: Identify all methods for computing a surcharge against Con Edison [illegible] the recipients of the 450 MW release discussed or considered by plaintiff and, for each such method:

(a) state the assumptions and means of deriving a figure by such method;

(b) state the figure(s) claculated for the surcharge by plaintiff under such method, or the figure(s) which such method yields;

(c) identify when and by whom such method was considered;

(d) if the method and figure(s) resulting therefrom were not adopted by plaintiff, indicate why not and who decided against their adoption.

Answer: In proving its damages, plaintiff will rely upon the computations contained in its answer to Interrogatory No. 21(b) which are based upon actual, not estimated, production quantities and costs during the period of the power reduction to benefit Con Edison. In 1970 plaintiff gave defendant a number of tables showing various methods of calculating the surcharge owed by defendant. These tables were based upon estimated production quantities and costs and showed the derivation of plaintiff's then claim that the appropriate surcharge was 5.41 mills. These tables have also been given to defendant pursuant to its Request for Production--Set No. 1 in this action. These tables are self-explanatory and set forth the basis of plaintiff's calculations.

It appears that other calculations of a surcharge to be paid by defendant or by the recipients of the 450 MW reduction were prepared. However, it would be extremely burdensome for plaintiff to review its business records in an attempt to reconstruct these calculations as Interrogatory No. 19 requests. In addition to the voluminous documents involved, the extensive passage of time makes it difficult, if not impossible, to reconstruct these calculations. Moreover, defendant is in as good a position as plaintiff to reconstruct these calculations from the business records in plaintiff's possession.

These records have been available for defendant's inspection and review since November 1, 1974. Defendant's Request for Production--Set No. 1 requested these documents and by letter dated November 1, 1974, from plaintiff's counsel to defendant's counsel, defendant was informed that the documents were available for inspection at Oak Ridge, Tennessee, where they have continued to be available.

Interrogatory No. 20

Interrogatory No. 20(a): Define "cascade mixing losses."

Answer: Uranium enrichment is a process which requires many successive steps of enrichment to accomplish the level required by power reactors and each step of enrichment increased the U-235 content by a very small factor. At each step in the enrichment process, two streams of uranium are joined. Any condition allowed to exist which fails to exactly match enrichment levels in the joining process streams causes an undoing of work of enrichment which has already been accomplished. This effect is termed "mixing loss" and is the reverse of "enrichment" or "separation."

Interrogatory No. 20(b): Calculate in detail what plaintiff contends were the actual cascade mixing losses incurred because of the 200 MW release of power beginning July 26-27, 1970.

Answer: Cascade mixing losses have the effect of reducing the number of separative work units produced in the gaseous diffusion plants. For this reason, when estimating the cost to the Government for cascade mixing losses attributable to a power reduction to be accomplished at some future time, or in the process of being accomplished at a given time, the Government must estimate and include the amount of such mixing losses, in its estimate of an appropriate "surcharge." However, once a power reduction has been accomplished and the costs for operating the gaseous diffusion plants, as well as the actual number of separative work units produced during the power reduction, have been determined, it is no longer necessary to estimate the reduction in separative work which occurred on account of cascade mixing losses. These losses will be reflected in the actual lower production of separative work units by the gaseous diffusion plants during the reduction period. Therefore, there is no separate itemization of cascade mixing losses in the Government's calculations contained in the answer to Interrogatory No. 21(b) below which shows the loss to plaintiff caused by the power reduction to benefit Con Edison.

In order to cull out the component of the total production attributable to mixing losses plaintiff must rely on studies showing that approximately three separative work units are lost whenever the power level of a cascade is either increased or decreased by one MW. Therefore, the mixing losses associated with the subject power reduction would be computed as follows:

400 MW change*
x 3 SWU/MW change
1,200 SWU

If these SWUs were valued at the 1970 charge per SWU of $26, then the dollar loss is computed as $31,200.

Interrogatory No. 20(c): Identify the sources of the numerical data used in calculation of (b), above.

Answer: Letter from Union Carbide Corporation (G. W. Horde) to ERDA (C. W. Hill) dated November 11, 1976 entitled Surcharge Lawsuit - United States Government Versus Consolidated Edison.

Interrogatory No. 20(d): Define "extraordinary maintenance."

Answer: Extraordinary maintenance, as the term relates to cascade power changes, is defined as the incremental maintenance effort required to remove, repair, and reinstall equipment which failed as a result of the power change, plus the additional maintenance effort required to reset alarm or control points on instruments as a result of changed operating conditions necessitated by the power change.

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*For the purposes of this answer, as well as the answer to Interrogatory No. 20(e), a MW change is defined as a change of one MW either increasing or decreasing the power supply to a plant. For example, a 200 MW temporary reduction would cause a 400 MW change.

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Interrogatory No. 20(e): Calculate in detail what plaintiff contends were the actual extraordinary maintenance costs incurred because of the 200 MW release of power beginning July 26-27, 1970.

Answer: Extraordinary maintenance costs attributable to a power reduction are estimated based on statistical information derived from many years of experience indicating that $80.00 (1970 dollars) in additional costs are incurred by the plaintiff per MW change. The extraordinary maintenance costs attributable to the 200 MW release are thus $32,000 computed as follows:

Cost per MW change	$80.00
MW change	x 400.00
Total cost	$32,000.00

Interrogatory No. 20(f): Identify the sources of the numerical data used in calculation of (e), above.

Answer: Letter from Union Carbide Corporation (G.W. Horde) to ERDA (C. W. Hill) dated November 11, 1976 entitled Surcharge Lawsuit - United States Government Versus Consolidated Edison. (Note that the $80.00 figure contained in the answer above represents a discounting of the $132.00 figure contained in this letter to 1970 dollars.)

Interrogatory No. 21

Interrogatory No. 21(a): Define "unit cost of production."

Answer: "Unit Cost of Production," as it relates to the gaseous diffusion plant complex operations, is defined as the total costs associated, either directly or by allocation, with the operation and administration of the gaseous diffusion plants and support facilities during a given period of time, divided by the units of separative work produced by the plants during the same period of time.

Interrogatory No. 21(b): Calculate in detail what plaintiff contends was the actual increase in unit cost of production caused by the 200 MW release of power beginning July 26-27, 1970.

Answer: On the basis of actual cost and production data during the period of the 200 MW reduction as compared to the cost and production that would have occurred in the absence of such reduction, the increase in plaintiff's unit cost of production resulting from the 200 MW release is $1.9441 per SWU, or $5.03 per MWH reduced, computed as follows:

Actual figures for period July 26, 1970, through October 1, 1970:

Plant	Costs	SWU Production
Oak Ridge	$ 6,681,310	221,777
Paduc[illegible]	7,460,224	417,587
Portsmouth	5,942,690	181,670
AEC	828,305	
	$20,912,529	821,034

$20,912,259 ÷ 821,034 = $25.4710

Figures assuming no 200 MW reduction for the period July 26, 1970 through October 1, 1970:

Plant	Costs	SWU Production
Oak Ridge	$7,049,708	256,267
Paducah	8,139,380	478,168
Portsmouth	6,268,884	212,833
AEC	828,305	
	$22,286,277	947,268

$22,286,277 ÷ 947,268 = $23.5269 per SWU

Increased cost per SWU $1.9441 ($25.4710 - 23.5269 = $1.9441).

Increased cost of production $1,596,172. (821,034 x $1.9441 = $1,596,172)

A copy of the detailed computations underlying these calculations is attached as Exhibit 3 hereto.

Interrogatory No. 21(c): Identify the sources of the numerical data used in calculation of (b), above.

Answer: (1) OR Cost-Budget Reports for July, August, September and October 1970. (Cost data)

(2) Cascade workpapers, July, August, September and October 1970. (Costs, power and SW production data)

(3) Uranium Enrichment Activity by 1971 workpapers. (Cost data)

(4) Power Branch (OR) worksheets. (Power costs and power levels, including data relative to actual power drop and pickup)

(5) Table "Performance Estimat for the Gaseous Diffusion Plants" prepared by Carbide and transmitted to OR by memorandum dated January 2, 1970.

(6) See answer to Interrogatory No. 20(c) above.

Interrogatory No. 22

Interrogatory No. 22(a): State in detail how plaintiff computed the figure of $1,713,617.50 prayed for in the Complaint (paragraph 36).

(b): State by whom the figure was calculated.

(c): State each component of alleged damages (e.g., mixing losses), together with the quantity of same and showing how the same was calculated.

Answers: (a): The amount prayed for in the complaint was based upon a surcharge of 5.41 mills per MWH assuming that 316,750 MWH were relinquished. The method used to calculate the 5.41 surcharge is set forth in a table previously produced to defendant by plaintiff (AEC 50). The calculation of plaintiff's actual losses as set forth in answer to Interrogatory No. 21(b) differs slightly from the losses claimed in the complaint. The latter figure was a projected figure calculated in 1970 and based upon estimated losses while the former is based on actual costs incurred during the subject period.

(b): E. A. Sheperd or members of his staff.

(c): See the answer to Interrogatory No. 21(b) above.

Interrogatory No. 23

Interrogatory: Identify separately with respect to each of the below-described documents all persons who participated in the preparation, derivation, or approval of the following documents:

(a) AEC 49
(b) AEC 50
(c) AEC 54
(d) AEC 56
(e) AEC 66
(f) AEC 71
(g) AEC 81
(h) AEC 94
(i) AEC 95
(j) AEC 96
(k) AEC 97
(l) AEC 98
(m) AEC 99
(n) AEC 103
(o) AEC 107
(p) AEC 109
(q) AEC 167
(r) AEC 168
(s) AEC 205
(t) AEC 219
(u) AEC 222
(v) DX 126-A
(w) DX 127
(x) DX 131

(y) the documents contained in Tab F to the letter of Mr. Richter, in response to defendant's letter requests of May 5 and May 12, 1975.

Answer: To the best of plaintiff's knowledge:

(a) E. A. Sheperd and/or members of his staff

(b) E. A. Sheperd and/or members of his staff

(c) R. C. Armstrong, B. C. Bowers, H. S. Oster, W. H. Henderson, and R. L. Lyle

(d) V. Corso

(e) T. E. Hart

(f) E. A. Sheperd

(g) G. Quinn and E. A. Sheperd

(h) R. C. Armstrong, H. D. Fletcher, and T. R. Lemons

(i) E. A. Sheperd and/or members of his staff, W. E. Campbell

(j) E. A. Sheperd and W. E. Campbell

(k) K. Fox and J. Ebetino

(l) K. Fox and J. Ebetino

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(m) W. Harwell, E. A. Sheperd, L. Meyer, G. Quinn and R. Russell

(n) R. W. Gagne, J. E. Ebetino and E. J. Grabowski

(o) E. J. Grabowski, F. R. Dowling and F. P. Baranowski

(p) T. Hart

(q) L. Meyer

(r) R. Harwell

(s) B. C. Bowers, H. S. Oster, and W. H. Henderson

(t) E. J. Grabowski, G. Quinn, and R. W. Gagne

(u) G. Quinn and E. A. Sheperd

(v) W. Harwell

(w) J. Morgan and W. Harwell

(x) D. Farrar, E. A. Sheperd, W. Campbell and V. Corso

(y) (1) AEC 130: S. R. Sapirie, J. C. Winkles, G. T. Arnold, and H. S. Oster

(2) Letter entitled "Oak Ridge Recommendation to Establish Charge for Release of Power to our Suppliers for Distribution to Others" from W. A. Harwell to W. E. Campbell dated October 1, 1970: W. Harwell and E. A. Sheperd

(3) Draft document entitled "Budgeting and Accounting for the Power Surcharge Credit" dated 8/7/70: H. S. Oster and B. C. Bowers

(4) Memo entitled "Accounting for Power Surcharge Credits" from H. S. Oster to W. A. Harwell dated 8/7/70: H. S. Oster

(5) AEC 52: J. C. Winkles and S. R. Sapirie

(6) Transcription of telephonic agreement between L. Seeber and S. R. Sapirie dated 7/31/70: L. Seeber and S. R. Sapirie

(7) AEC 67: G. Quinn and J. Abbadessa

(8) AEC 70: S. R. Sapirie, J. C. Winkles and R. C. Armstrong

(9) Nine pages of tables with work notes following document 8 above, and preceding document 10 below: B. C. Bowers, H. D. Fletcher, H. S. Oster, J. W. Morgan, and R. C. Armstrong

(10) AEC 54 same as (c) above with notations by B. C. Bowers and workpapers by H. S. Oster.

(11) AEC 50: See above

(12) AEC 51: T. Hart, E. A. Sheperd, W. Campbell, J. Abbadessa, G. Quinn and F. P. Baranowski

(13) Memo to file from D. Miller, Contract Division, stating: "Meeting with Virginia Electric Power Company for Discussion of Uranium Enrichment Services Contracting Filed in Toll Enriching." This memo was inadvertently sent to defendant. It is completely unrelated to any power reduction.

(14) Tables referred to as "Schedule B-4" and "Schedule B-5" are tables prepared by: B. C. Bowers, H. S. Oster, H. D. Fletcher, and J. W. Morgan

(15) Letter from E. A. Wende to J. E. Watson dated 10/29/70: J. C. Winkles, G. T. Arnold, E. A. Wende, and R. C. Armstrong

(16) Letter entitled "Revised Power Rates - FY 1971 Midyear Review" from S. R. Sapirie to R. V. Anderson: Plaintiff has no record showing concurrences. The document was written by J. P. Nanney and it was probably concurred in by R. C. Armstrong.

(17) Letter entitled "Revised Power Rates - FY 1971 Midyear Review" from S. R. Sapirie to R. F. Hibbs: Plaintiff has no record showing concurrence. The document was written by J. P. Nanney and it was probably concurred in by R. C. Armstrong.

(18) Letter entitled "Proposal to Make Advance Payments to TVA for Power Under Contracts Nos. AT-(40-1)-3760 and -3761 from S. R. Sapirie to J. P. Abbadessa dated 9/23/70: J. C. Winkles, G. T. Arnold, F. O. Christie, and S. R. Sapirie.

(19) MRS from J. C. Winkles to S. R. Sapirie dated 9/11/70: J. C. Winkles.

(20) AEC 102: J. C. Winkles and S. R. Sapirie.

(21) Memo entitled "Proposed Revision to Cost Curve" from H. S. Oster to E. A. Shepherd dated August 17, 1970: H. S. Oster.

(22) MRS from J. C. Winkles to R. C. Armstrong dated 9/16/70: J. C. Winkles.

(23) Memo to the file entitled "Meeting with Tennessee Valley Authority on Proposed Rate Increase" dated 8/16/70: J. C. Winkles.

(24) The nine pages following the above memo were developed by B. C. Bowers, H. S. Oster, H. D. Fletcher, and J. W. Morgan. Seven of these documents are repeat copies of tables referred to in 13 above.

(25) Two copies of a draft memo entitled "Proposed AEC Policy on Gaseous Diffusion Plant Power Reduction to Alleviate Power Shortages" dated 9/14/70: J. C. Winkles, H. S. Oster, B. C. Bowers, R. C. Armstrong, G. T. Arnold and W. H. Henderson.

(26) Handwritten document entitled "1350 MW Level": B. C. Bowers.

(27) Table entitled "Summary of Surcharge Calculations": B. C. Bowers, H. S. Oster, H. D. Fletcher, and J. W. Morgan.

(28) Composition beginning "As shown in the above table ... rate appears to be a reasonable figure." written by J. C. Winkles with information supplied by Table listed in item 24 above. (This composition is in two forms-handwritten and typewritten.)

(29) Sixteen pages of work papers following item 25 are computations of B. C. Bowers, H. S. Oster, H. D. Fletcher, and T. A. Hart.

(30) MRS from H. S. Oster to T. A. Hart dated 8/7/70: H. S. Oster.

(31) Memo entitled "Accounting for Power Surcharge Credits" from H. S. Oster to W. A. Harwell: H. S. Oster.

(32) Tables (including one copy of AEC 54) following document 28 above and ending with document 33 below contain notations by B. C. Bowers.

(33) Additional copy of the document identified in number 3 above with notes by B. C. Bowers.

(34) The remainder of the documents in this table are miscellaneous notes and workpapers of H. S. Oster and B. C. Bowers. The final copy of AEC 54 contains notes of H. S. Oster.

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Interrogatory No. 24

Interrogatory: (a) In the years 1969, 1970 and 1971, state by month the quantity (in separative work units) of the monthly production of "pre-production" separative work units to be placed in inventory. (See Quinn transcript 28).

(b) State in detail how and upon what bases the price for sale of pre-production, inventoried enriched uranium was determined by plaintiff in the years 1969 through 1971.

Answer:

(a) Quantity of Gaseous Diffusion Plants Production Placed Into Preproduction Inventory

	Kilograms Separative Work		
	CY 1969	CY 1970	CY 1971
January	202,103	149,761	240,342
February	302,506	101,898	138,440
March	261,021	252,437	174,905
April	304,260	217,800	99,354
May	275,130	243,401	188,501
June	239,709	215,712	176,224
July	209,491	115,267	218,821
August	221,431	67,969	382,673
September	209,887	0	427,773
October	158,101	0	449,289
November	251,509	74,220	584,148
December	173,704	271,337	614,828
	2,807,842	1,709,802	3,659,298

Sources of Information:

(1) Uranium Enrichment Monthly Production Reports for Oak Ridge and Paducah Gaseous Diffusion Plants.

(2) Monthly Activities Reports for Portsmouth Gaseous Diffusion Plant.

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(b) The separative work charge in effect at any particular time period is utilized for all sales irrespective of whether sales are out of preproduction or out of current production. See the answer to Interrogatory No. 12 above as to how the separative work charge is determined.

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Interrogatory No. 25

Interrogatory: (a) As to the separative work units produced in June, July, August, September, and October of 1970 at AEC's gaseous diffusion plants, state separately by month:

(a) for separative work units sold under then existing contracts or otherwise sold at or about the time of production, the date of sale, the sale price, and the name of the purchaser:

(b) for separative work units placed into inventory or otherwise to be sold at a later date, whether they were in fact later sold, and, if so, the date of sale, the sale price, and the name of the purchaser.

Answer: (a) The following table specifies actual sales of enriched material during the months listed in this question. Plaintiff has no method of determining whether material sold to these customers was drawn from inventory or withdrawn from the cascade at the time of sale. All sales during these months were at the then current established charge of $26.00 per SWU.

Separative Work Sold Under Enrichment Services Contracts

	Kg Units of Separative Work	Customer
June 1970		
	105,556	Commonwealth Edison
	29,491	Babcock & Wilcox Company
	33,360	Euratom
	83,138	Westinghouse
	38,699	NOK-Switzerland
	18,815	Mitsubishi Atomic Power Industries, Inc.
	25,516	General Electric Company

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	Kg Units of Separative Work	Customer
July 1970		
	45,660	Commonwealth Edison
	31,096	General Electric
	29,100	General Electric
	29,545	Babcock & Wilcox Company
	37,944	Euratom
	27,189	Euratom
	69,523	Westinghouse
	4,309	NOK-Switzerland
	9,458	Euratom
August 1970		
	23,127	Commonwealth Edison
	7,104	Commonwealth Edison
	24,015	Boston Edison
	35,045	Boston Edison
	56,859	General Electric
	5,852	Babcock & Wilcox Company
	79,327	Kansai Electric
	39,261	Westinghouse
	39,262	Westinghouse
	42,996	Euratom
	12,977	Euratom
	20,417	Euratom

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Kg Units of Separative Work	Customer
September 1970	
91,081	Boston Edison
29,125	Boston Edison
50,833	NOK-Switzerland
32,363	Junta de Energia Nucleare
13,543	Babcock & Wilcox Company
35,175	Kansai Electric
23,192	Westinghouse
17,060	Sumitomo
37,983	Euratom
39,441	Euratom
3,836	Euratom
October 1970	
112,946	Boston Edison
5,313	Boston Edison
23,078	Commonwealth Edison
125,519	NOK-Switzerland
26,941	Babcock & Wilcox
42,283	Kansai Electric
25,662	Westinghouse
21,761	Westinghouse
25,237	JAPCO
4,660	JAPCO
6,731	Euratom
10,201	Euratom
19,982	Euratom
2,667	Euratom
27,027	Euratom

Source of Information: AEC Forms 741 (Nuclear Materials Transfer Report)

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(b) Once enriched material is placed in stockpile it is treated as fungible inventory. No record is kept to correlate the date of withdrawal with the date of shipment for material placed in stockpile.

Interrogatory No. 26

Interrogatory: State fully and in detail how plaintiff calculates its alleged damages under the theory of contract implied by law. (Count 4).

Answer: See the answer to Interrogatory No. 21(b).

Interrogatory No. 27

Interrogatory No. 27(a): Identify each person at AEC's Oak Ridge facilities or elsewhere who derived or calculated a surcharge figure of approximately 3 (or 3.4) mills with respect to the 200 MW drop on or about July 26-27, 1970.

(b): Identify the documents in Tab F to Mr. Richter's letter of May 20, 1976 which refer to the surcharge figure in (a) above.

(c): Identify the author of Exhibit A, annexed hereto.

Answer: (a): Diary notes of S. R. Sapirie indicate that on July 24, 1970 a surcharge of 3.0 mills was computed in Oak Ridge. Plaintiff has been unable to locate any documents to support this calculation and does not know the basis on which it was computed.

(b): Plaintiff cannot identify any document in Tab F which relates to this calculation.

(c): B. C. Bowers

Interrogatory No. 28

Interrogatory: Identify all efforts made by plaintiff to obtain from OVEC the benefit of a "surcharge" (whether by crediting against AEC's monthly bills or otherwise) of 5.41 mills/KWH as provided for in AEC's contract modification with OVEC dated July 30, 1970 (AEC 57).

Answer: In addition to the letter supplement referred to in the question, plaintiff's records show that a telephone communication occurred on 8/18/70 which was confirmed by letter from D. C. Cook of

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OVEC to E. A. Wende of the AEC (AEC 77). On 9/14/70 AEC expressed its willingness to accept OVEC billing without a surcharge credit in a letter from R. Anderson of the AEC to I. O. Hawk, Jr. of OVEC. The final correspondence on this subject was a letter from D. C. Cook to S. R. Sapirie dated 10/8/70 (AEC 104).

Interrogatory No. 29

Interrogatory: State whether the losses allegedly incurred because of the release of the 200 MW were taken into account in any financial statements of the plaintiff. If so, identify such financial statements.

Answer: Yes. The Uranium Enrichment Activity Statements for Fiscal Year 1971. While the losses incurred from operating in 1970 at a reduced power level to benefit Con Edison are not specifically identified in these statements, these losses did contribute to the approximately $18.7 million deficit shown in them.

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Interrogatory No. 30

Interrogatory: Identify all documents in plaintiff's possession or control relating to the answer to each Interrogatory or subparagraph thereof, by indicating the nature of each such document (e.g., letter, memo, etc.), author, date, and the Interrogatories and subparts thereof to which it relates. If a document has already been identified as a "PX", "D", "AEC", "OEP", or "CE" document, it is sufficient to identify the document as such.

Answer: See the answers above. In addition, the following documents were also relied upon in preparing the answers to Interrogatories No. 10 and 11 above:

No. 10

Letter dated January 20, 1970, from S. R. Sapirie to J. E. Watson (TVA) entitled "Temporary Reduction of Power Deliveries at Oak Ridge and Paducah."

Letter dated January 20, 1970, from St. G. T. Arnold to G. Williams (TVA) entitled "Reduction and Restoration of AEC Power in Connection with Unscheduled Outage of Generating Capacity on TVA System."

Letter dated January 8, 1970, from G. O. Wessenauer to S. R. Sapirie.

Letter dated January 29, 1970, from St. G. T. Arnold to G. Williams (TVA) entitled "Modification of Letter of January 20, 1970.'

Letter dated January 23, 1970, from St. G. T. Arnold to G. Williams entitled "Repayment of Power to AEC."

Letter Supplement dated January 22, 1970, to Contracts Nos. AT-(40-1)-1628 and -1629.

No. 11

Letter Supplements dated May 6, 1969 and August 27, 1969 to Contract No. AT-(40-1)-1530.

Charts entitled ORO Power Demands - MW, 3-1-70 through 3-23-71 and 10-1-66 through 1-26-70, prepared by J. Morgan.

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VERIFICATION

STATE OF MARYLAND)
) SS
COUNTY OF MONTGOMERY)

Leo W. Meyer being first duly sworn, deposes and says: I am currently Power and Utilities Engineer with the U. S. Energy Research and Development Administration. I have read the interrogatories served upon defendant by plaintiffs and the foregoing answers to those interrogatories and such answers are true according to the best of my information and belief.

Leo W Meyer
Leo W. Meyer

Sworn to before me this 4th day
of March 1977.

Dorothy E. Gibson
Notary Public
My commission expires July 1, 1978.

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STANDARD TABLE OF ENRICHING SERVICES

Assay (wt. % ^{235}U)	Feed component (normal kgs U feed/ kg U product)	Separative work component (kg SWU/ kg U product)
0.20	0	0
0.25	0.093	−0.100
0.30	0.156	−0.158
0.35	0.294	−0.189
0.38	0.352	−0.197
0.40	0.391	−0.198
0.42	0.431	−0.197
0.44	0.470	−0.194
0.46	0.509	−0.189
0.48	0.548	−0.182
0.50	0.587	−0.173
0.52	0.626	−0.163
0.54	0.665	−0.151
0.56	0.7[illegible]	−0.137
0.58	0.744	−0.123
0.60	0.783	−0.107
0.65	0.881	−0.062
0.70	0.978	−0.012
0.711	1.000	0.000
0.75	1.076	0.044
0.80	1.174	0.104
0.85	1.272	0.168
0.90	1.370	0.236
0.95	1.468	0.307
1.00	1.566	0.380
1.10	1.761	0.535
1.20	1.957	0.693
1.30	2.153	0.866
1.40	2.348	1.045
1.50	2.544	1.227
1.60	2.740	1.413
1.70	2.935	1.603
1.80	3.131	1.797
1.90	3.327	1.994
2.00	3.523	2.194
2.20	3.914	2.602
2.40	4.305	3.018
2.60	4.697	3.441
2.80	5.088	3.871
3.00	5.479	4.306
3.20	5.871	4.746
3.40	6.262	5.191
3.60	6.654	5.638
3.80	7.045	6.090
4.00	7.436	6.544
4.50	8.415	7.690
5.00	9.393	8.851
5.50	10.372	10.022
6.00	11.350	11.203
7.00	13.307	13.597
8.00	15.264	15.995
9.00	17.221	18.422
10.00	19.178	20.863
12.00	23.092	25.792
14.00	27.006	30.737
16.00	30.920	35.719
18.00	34.834	40.721
20.00	38.748	45.737
25.00	48.532	58.369
30.00	58.317	71.064
35.00	68.102	83.816
40.00	77.886	96.616
50.00	97.456	122.344
60.00	117.025	148.235
70.00	136.595	174.302
80.00	156.164	200.605
85.00	165.949	[illegible]
90.00	175.734	22[illegible].311
92.00	179.618	[illegible].796
93.00	181.605	235.550
94.00	183.562	238.328
96.00	187.476	244.842
98.00	191.389	269.992

A 1404

6-16-70
Rev. 8-14-69

Uranium Enriching Agreement No. ___________

AGREEMENT FOR FURNISHING
URANIUM ENRICHMENT SERVICES

(Domestic Customers - Firm Quantities)

THIS AGREEMENT, entered into this __________ day of __________________, 19[illegible], by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter sometimes referred to as the "Commission"), and

____

____

(hereinafter referred to as the "Customer");

WITNESSETH THAT:

WHEREAS, the Commission has Government-owned facilities capable of enriching uranium in the isotope 235; and

WHEREAS, the Customer desires to obtain certain uranium enriching services from the Commission; and

WHEREAS, the Commission has authority to provide the enriching services desired by the Customer and is willing to provide such services, all under the terms and conditions more particularly hereinafter set forth; and

WHEREAS, this agreement is authorized by the Atomic Energy Act of 1954, as amended;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

ARTICLE I - DEFINITIONS

As used throughout this agreement, the following terms shall have the meaning set forth below:

1. The term "Act" means the Atomic Energy Act of 1954, as amended.

2. The term "Commission" means the United States Atomic Energy Commission or any duly authorized representative

thereof, including the Contracting Officer except for the purpose of deciding an appeal under the article entitled "Disputes."

3. The term "Commission's established specifications" means the specifications for purity and other physical or chemical properties of special nuclear material and source material (including tails material) as published by the Commission in the Federal Register from time to time applicable to material subject to this agreement on the date of delivery of such material.

4. The term "Commission facility" means a laboratory, plant, office or other establishment operated by or on behalf of the Commission.

5. The term "Contracting Officer" means the person executing this agreement on behalf of the Government, and includes his successors or any duly authorized representative of any such person.

6. The term "depleted uranium" means uranium depleted in the isotope 235.

7. The term "enriched uranium" means uranium enriched in the isotope 235.

8. The term "enriching services" means the separative work necessary to enrich or further enrich uranium in the isotope 235.

9. The term "established Commission pricing policy" means any applicable price or charge in effect at the time of performance of any services under this agreement (i) published by the Commission in the Federal Register for material or services subject to this agreement, or (ii) in the absence of such a published figure, determined in accordance with the Commission's Pricing Policy; provided, however, that for purposes of this definition, any enriching services performed by the Commission shall be deemed to have been performed on the date of delivery of related enriched uranium to the Customer. A statement of such Pricing Policy will be furnished the Customer upon request. The Commission's published prices or charges, as well as its Pricing Policy, may be amended from time to time.

10. The term "established Commission standard table of enriching services" means the table published from time to time by the Commission in the Federal Register and in effect at the time of delivery of any enriched uranium to the Customer under this agreement, which table is to be used in connection with the furnishing of enriching services by the Commission to determine the relationship between feed materials, enriched uranium produced therefrom and separative work thereby required to be performed as a function of the quantities and assays of such materials.

11. The term "feed material" means the uranium constituting source material or special nuclear material to be furnished by the Customer to the Commission in connection with the providing of enriching services to the Customer under this agreement; provided, however, it shall not, except as may otherwise be agreed by the Commission and the Customer from time to time, mean uranium having an assay (weight percent U-235) below 0.711 unless such uranium was previously distributed by the Commission or has been derived solely from uranium previously distributed by the Commission.

12. The term "natural uranium" means uranium which has neither been enriched nor depleted in the isotope 235.

13. The term "persons acting on behalf of the Commission" includes employees and contractors of the Commission, and employees of such contractors, who implement or participate in the implementing of this agreement pursuant to their employment or their contracts with the Commission.

14. The term "source material" means (i) uranium, thorium, or any other material which is determined by the Commission pursuant to the provisions of section 61 of the Act to be source material; or (ii) ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time.

15. The term "special nuclear material" means (i) plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material, but does not include source material; or (ii) any material artificially enriched by any of the foregoing, but does not include source material.

16. The term "tails material" means uranium produced as a result of the performance of enriching operations, and with an isotope 235 assay less than 0.711 weight percent U-235 in total uranium.

ARTICLE II - ENRICHING SERVICES - DELIVERY SCHEDULES - SPECIFICATIONS - RESTRICTION ON FURNISHING FEED MATERIAL OF FOREIGN ORIGIN

1. The Commission agrees to provide enriching services to the Customer in accordance with the terms and conditions as hereinafter set forth.

2. The Commission shall deliver to the Customer enriched uranium in the quantities and assays and at the time or times set forth in the following schedule:

Quantity (Kg U)	Assay (Weight Percent U-235)	Delivery Schedule

3. The quantities of feed material to be furnished shall be those required, in accordance with the established Commission standard table of enriching services to obtain the quantities and assays of enriched uranium to be delivered to the Customer pursuant to Section 2 of this article. The Customer shall furnish feed material other than natural uranium to the Commission in the quantities and assays and at the time or times set forth in the following schedule.[1]

---

[1] If either the quantity or assay of the feed material other than natural uranium to be furnished cannot be determined within the limits specified in Section 4 of this Article II, the quantities and assays set forth in this schedule may include a range of permissible variation sufficient to incorporate such uncertainty. In no event, however, shall such variation as set forth in such schedule result in a maximum number of units of separative work greater than 110% of the minimum number of units of separative work to be performed by AEC, for each scheduled delivery by AEC set forth in Section 2 of Article II, without regard to the variations permitted in Section 4 of Article II as determined from the established Commission standard table of enriching services in effect at the time the parties agree to such schedule.

Quantity (Kg U)	Assay (Weight Percent U-235)	Delivery Schedule 2/

Such additional feed material as may be required to be delivered by the Customer shall be natural uranium.] Unless otherwise agreed, deliveries of feed material to the Commission shall precede related deliveries of enriched uranium to the Customer by ninety (90) days.3/

Alternate Sections 2 and 3 to Foregoing Article II

—/2. The Commission shall furnish the Customer enriching services in the amounts (Kg units of separative work) and at the time or times set forth in the enriching services schedule contained in Appendix "A" hereof. Such schedule is supported by a material schedule set forth in such Appendix "A" of quantities (Kg U) and assays (weight percent U-235) and times of delivery for deliveries of feed material other than natural uranium to be delivered by the Customer and enriched uranium to be delivered by the Commission. Such material schedule is to be used solely for the purpose of deriving the amounts of enriching services to be furnished the Customer by the Commission at the times shown in such enriching service schedule in accordance with the established Commission standard table of enriching services in effect as of the date of this agreement.4/ Should the established Commission standard table of enriching services subsequently be changed, then the amounts of enriching services set forth in the enriching service schedule in Appendix "A" hereof for services to be provided subsequent to such change shall be revised by the Commission to be equal to the amounts of enriching services derived from the application of the then current established Commission standard table of enriching services to the relevant portion of the material schedule set forth in Appendix "A" hereof.

2/ In accordance with the Atomic Energy Act of 1954, as amended, schedule shall not specify delivery of feed material prior to January 1, 1969.

3/ The AEC may agree to perform enriching services in cases where the lead time requirements for furnishing feed material are not satisfied; in such cases an appropriate surcharge may also be imposed to provide for recovery of additional AEC costs and interest charges.

4/ In accordance with the Atomic Energy Act of 1954, as amended, the material schedule in Appendix "A" shall not specify delivery of feed material prior to January 1, 1969.

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3. The quantities and assays of feed material to be delivered by the Customer shall be those required in accordance with the established Commission standard table of enriching services to produce the quantities and assays of enriched uranium specified by the Customer through the performance of enriching services by the Commission in the amounts and at the times set forth in the enriching services schedule in Appendix "A"; provided, however, that in no event shall the maximum assay of enriched uranium to be delivered by the Commission exceed the maximum assay indicated to be so available in the established Commission standard table of enriching services; nor shall the minimum assay of feed material to be delivered by the Customer be less than the minimum assay so indicated in such table. Beginning with ____________, 19___, the Customer shall provide the Commission on or before ____________ of each year with a written schedule for the subsequent two-year period of the estimated quantities and assays of feed material other than natural uranium to be delivered by the Customer and the estimated quantities and assays of enriched uranium to be delivered by the Commission upon the performance of the agreed upon enriching services at the time or times set formance of the agreed upon enriching services at the time or times set forth in the enriching service schedule contained in Appendix "A" hereof. Such estimates shall have as their sole purpose facilitating deliveries hereunder and shall not be binding on either the Commission or the Customer. The Customer shall give the Commission such advance notice, not to exceed 120 days in advance/of the date of delivery of enriched uranium by the Commission, as the/Commission may reasonably require from time to time of the actual quantities and assays of feed material other than natural uranium to be delivered by the Customer and or the actual quantities and assays of the enriched uranium to be delivered by the Commission upon performance of the agreed upon enriching services. Unless otherwise agreed, deliveries of feed material to the Commission shall precede related deliveries to the Customer of enriched uranium produced therefrom by ninety (90) days. 5/

4. It is recognized that deliveries of enriched uranium to the Customer or of feed material to the Commission may vary slightly from the quantity or assay intended to be delivered. It is agreed that variations in (i) quantities of material delivered of not greater than 0.50% in case of material of not more than 5% assay (weight percent U-235) and not greater than 0.25% in case of material of greater than 5% assay (weight percent U-235); and (ii) assay within the variations permitted by the Commission's established specifications shall be acceptable; provided, however, that in the event the quantity of feed material actually furnished and acceptable hereunder is less than that required under the established Commission standard table of enriching

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5/ The AEC may agree to perform enriching services in cases where the lead time requirements for furnishing feed material are not satisfied; in such cases, an appropriate surcharge may also be imposed to provide for recovery of additional AEC costs and interest charges.

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services to obtain the quantity and assay of enriched uranium actually delivered to the Customer, even though within the foregoing permissible variations, the Customer shall pay the Commission for the additional feed material required at the prices set forth in the established Commission pricing policy; and provided, further, that in the event the quantity of feed material actually furnished and acceptable hereunder is greater than that required, under the established Commission standard table of enriching services, to obtain the quantity and assay of enriched uranium actually delivered to the Customer, such excess feed material shall, at the election of the Customer, either be retained by the Commission and applied against future deliveries of feed material or delivered to the Customer at the Customer's expense, and the excess feed material shall not be taken into consideration in determining the amount to be paid to the Commission. Feed material furnished in excess of the amounts acceptable hereunder shall, unless otherwise agreed, be delivered to the Customer at the Customer's expense. Any change in such established Commission standard table shall require at least 180 days' notice to the Customer by publication in the Federal Register or otherwise.

5. All feed material to be furnished to the Commission and all enriched uranium to be delivered to the Customer hereunder shall be in the form of UF_6 and conform to the Commission's established specifications for such material. Any changes in such specifications shall require at least 180 days' prior notice to the Customer by publication in the Federal Register or otherwise. Determinations of the quantities and properties of all such material delivered by or to the Commission shall be made in accordance with the provisions of this agreement. Upon final determination that any such material is not of the assay required by this agreement or does not conform to the Commission's established specifications for such material, the supplier of such material shall thereupon promptly elect either to (a) remove the rejected material, or (b) provide the receiver with instructions for its disposition. Any such removal or other disposition in accordance with (a) or (b) of the preceding sentence shall be at the expense of the supplier, and the supplier shall reimburse the receiver for the reasonable cost of disposing of such material. Where the receiver is the Commission, such reasonable cost shall be determined in accordance with the established Commission pricing policy.

6. Except as may be otherwise authorized by the provisions of the Federal Register Notice entitled "Uranium Enrichment Services Criteria," ________ FR ________ 1966, as the same may be amended from time to time, feed material of foreign origin shall not be furnished by the Customer hereunder if the enriched uranium to be obtained from the Commission hereunder is intended for use in a utilization facility, as defined in the Act, within or under the jurisdiction of the United States.

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ARTICLE III - CHARGES FOR ENRICHING SERVICES - CEILING CHARGE - OTHER CHARGES

1. The charges to be paid to the Commission for enriching services provided to the Customer hereunder shall be determined in accordance with the established Commission pricing policy for such services; provided, however, that the unit charge for enriching services during the term of this agreement shall in no event exceed a ceiling charge of $30.00 (subject to possible adjustment pursuant to Section 3 of this article) per Kg unit of separative work for separation of U-235 from U-238, as defined in the established Commission pricing policy.

2. It is recognized that the Commission may, from time to time, during the term of this agreement, either increase or decrease its unit charge for enriching services. Any increase in such charge shall require at least 180 days' notice to the Customer, by publication in the Federal Register or otherwise.

3. With the view of arriving at an equitable adjustment of the ceiling charge provided for in Section 1 above in case the costs of labor and/or electric power utilized in the performance of enriching services should, subsequent to June 30, 1965, vary upward or downward, said charge shall be subject to adjustment in the event of increases or decreases in costs of labor and/or electric power in accordance with the following method:

A. Labor. For the purpose of this adjustment the portion of the ceiling charge representing labor is accepted as $____________. This amount accepted as representing labor shall be adjusted on the basis of the monthly reports of average hourly earnings of production workers in the Manufacturing Industries, Non-Durable-Goods Industries Division, Chemical and Allied Products Subdivision, compiled and published by the U. S. Department of Labor in the Monthly Labor Review of the Bureau of Labor Statistics. An arithmetical average of the monthly report figures for each six months' period after June 30, 1965 shall be computed, and the percentage increase, if any, will be obtained by comparison of such average with the published average hourly earnings figure of $2.87 for the base month of June 1965. The adjustment, if any, in labor costs will be obtained by applying such percentage to the amount accepted as representing labor above.

B. Electric Power. For the purpose of this adjustment the portion of the ceiling charge representing power is accepted as $__________. This amount accepted as representing power shall be adjusted on the basis of the average cost per kilowatt hour of power used in all of the Commission's gaseous diffusion plants. The Commission shall determine the average cost of power for each six months' period after June 30, 1965, and the percentage increase, if any, will be obtained by comparison of such average with the Commission's average cost per kilowatt hour of power for the base six months' period commencing on January 1, 1965, and ending on June 30, 1965. The adjustment, if any, in power costs will be obtained by applying such percentage to the amount accepted as representing power above.

C. General. In no event shall the ceiling charge be less than $30 per Kg unit of separative work for separation of U-235 from U-238, as defined in the established Commission pricing policy. If for any reason the statistics published by the U. S. Department of Labor, referred to above, are not available, adjustment for labor costs will be made by using a similar report or index selected by the Commission.

4. In addition to the charges to be paid for enriching services, the Customer shall pay the Commission's service charges, if any, for withdrawal, handling and packaging of enriched uranium, for storage of feed material to be applied against future deliveries of feed material, and for any other special service rendered, at the Customer's request, in connection with providing enriching services hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall also pay such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE IV - FURNISHING OF ADDITIONAL ENRICHING SERVICES TO CUSTOMER - CHANGES IN SCHEDULE

It is recognized that from time to time during the term of this agreement the Customer may desire to obtain additional enriching services from the Commission or to change the schedule for furnishing enriching services hereunder. In either event, the Commission and the Customer may mutually agree upon the provision of additional enriching services or the advancement of the agreed schedule for furnishing enriching services as desired by the Customer. Unless otherwise agreed, any such change in the arrangements herein provided shall be subject to all of the other terms and conditions of this agreement, including those relating to charges and specifications; provided, however, that in addition to the charges provided herein the Commission may impose a reasonable surcharge, as determined by the Commission, representing additional costs, if any, to the Commission for providing the enriching services on short notice.

ARTICLE V - COMMISSION FACILITY PROVIDING ENRICHING SERVICES - POINT OF DELIVERY FOR FEED MATERIAL

1. All materials delivered or returned to the Customer shall be furnished by, and feed material furnished to the Commission shall be delivered to, the Commission facility or facilities specified by the Commission from time to time by written notice to the Customer at least ninety days in advance of the relevant delivery dates specified in this agreement. Enriching services may be performed in whole or in part at the same or other facilities.

Alternate Article V to be employed when alternate Sections 2 and 3 of Article II are used.

1. All materials delivered or returned to the Customer shall be furnished by, and feed material furnished to the Commission shall be delivered to, the Commission facility or facilities specified by the Commission from time to time by written notice to the Customer no later than fifteen days following the Commission's receipt of notice as provided in Section 3 of Article II from the Customer of the actual quantities and assays of feed material other than natural uranium and of enriched uranium to be delivered by the Customer and the Commission respectively. Enriching services may be performed in whole or in part at the same or other facilities.

ARTICLE VI - WARRANTY OF FEED MATERIAL FURNISHED BY CUSTOMER - INDEMNITY

The Customer warrants that all feed material furnished to the Commission hereunder is of the assay required by this agreement

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and conforms to the Commission's established specifications for such material. Notwithstandng the provisions of the article entitled "Force Majeure," the Customer shall hold and save the Government, the Commission, and persons acting on behalf of the Commission harmless from any and all damages, liabilities and costs arising out of or in connection with a breach of this warranty; provided, however, that the Customer shall not be responsible for any damage, liability or cost (1) which would have been incurred even if the Customer had not breached this warranty, or (2) which is incurred subsequent to final acceptance of such feed material by the Commission. The Customer shall in no event be liable for indirect or consequential damages, and nothing contained herein shall deprive the Customer of any rights under indemnification agreements entered into pursuant to Section 170 of the Act.

ARTICLE VII - CUSTOMER'S OPTION TO ACQUIRE TAILS MATERIAL

1. It is recognized that the performance of enriching services such as those provided hereunder results in the generation of tails material. The Customer shall have an option, exercisable upon written notice to the Commission at the time of delivery of the related quantity of feed material, to acquire tails material from the Commission (but not necessarily tails material resulting from feed material furnished by the Customer) in accordance with the terms and conditions as hereinafter set forth. Tails material subject to the Customer's option but not taken shall remain the property of the Government.

2. In the event the Customer elects to exercise its option to acquire tails material from the Commission, the written notice so advising shall specify the quantities (Kg U) of tails material desired. The maximum quantity of tails material to be subject to the Customer's option shall be equal to the difference between the total quantity of uranium supplied by the Customer as feed material and the total quantity of enriched uranium furnished to the Customer; provided, however, that the maximum quantity so calculated shall be reduced to the extent of processing losses as determined by the Commission. The U-235 assay of tails material delivered to the Customer shall be within the sole discretion of the Commission.

3. Unless otherwise agreed, delivery of tails material shall be at the same time as delivery of related enriched uranium to the Customer.

4. All tails material delivered to the Customer hereunder shall be in the form of UF_6 and shall conform to the Commission's established specifications for such material. The quantities

and properties of tails material shall be determined in accordance with the provisions of this agreement.

5. It is recognized that deliveries of tails material to the Customer may vary slightly from the quantity intended to be delivered. It is agreed that variations in quantities of tails material delivered of not greater than 0.50% shall be acceptable.

6. Except as provided in Section 7 below, no charge will be made in connection with furnishing tails material to the Customer. The Customer shall receive no credit for tails material subject to its option but not taken.

7. The Customer shall pay the Commission's service charges, if any, for withdrawal, handling and packaging, and for any other special service rendered, at the Customer's request, in connection with furnishing tails material hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall pay all such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE VIII - TERM OF AGREEMENT

The term of this agreement shall commence as of the date of execution thereof and continue until completion of enriching services as provided in Article II hereof and full payment therefor, unless sooner terminated in accordance with the agreement terms.

ARTICLE IX - PAYMENT

1. The Customer shall pay to the Commission the charges stated in Article III hereof for enriching services furnished to the Customer hereunder. All such payments shall be made within thirty (30) days from the date of the Commission's invoice. The Commission shall ordinarily submit an invoice promptly after each shipment of enriched uranium to the Customer. Checks shall be payable to the United States Atomic Energy Commission and, unless otherwise directed by the Commission, shall be mailed to the Director, Finance Division, United States Atomic Energy Commission, P.O. Box E, Oak Ridge, Tennessee 37831. In the event of disagreement as to the quantities or properties of uranium delivered by or to the Customer, provisional payments shall be made on the basis of the Commission's figures, and appropriate adjustments in amounts paid made promptly upon resolution of such disagreements in accordance with the provisions of this agreement.

2. Any other amounts due the Commission under this agreement shall be paid within thirty (30) days after date of invoice therefor in accordance with instructions furnished with such invoice.

3. The Customer shall pay interest at the per annum rate (365-day basis established from time to time by the Commission for general application to monies due the Commission on all amounts not received by the Commission within thirty (30) days from the date of invoice, such interest to commence on the thirty-first (31st) day from date of invoice.

ARTICLE X - TERMINATION - SUSPENSION

1. In addition to any other rights the Commission may have, the Commission reserves the right, at no cost to the Government, to terminate or suspend this agreement, by written notice to the Customer, in the event (i) the Customer's right to possess enriched uranium to be delivered to the Customer hereunder expires or is suspended or terminated by any authority having power to take such action; (ii) the Customer shall fail to perform its obligations hereunder, and shall fail to take corrective action within 30 days of the date of the written notice of such failure to perform as provided above, unless such failure arises out of causes beyond the control and without the fault or negligence of the Customer, its contractors or agents; or (iii) if bankruptcy or insolvency proceedings are commenced by or against the Customer, or if receivars are appointed to take possession of the business of the Customer. The Commission may also terminate this agreement at no cost to the Government, upon reasonable written notice to the Customer, at such time as commercial enriching services are provided by another domestic source; provided, however, that the Commission will, upon request, prior to the effective date of such termination, rescind the notice of termination and will continue performance of this agreement if the services of the domestic source are not available to the Customer: (1) to the extent provided for in this agreement during the remainder of its term; (2) on terms and conditions which are considered by the Commission to be reasonable and nondiscriminatory as between domestic and foreign customers, and (3) at charges considered by the Commission to be reasonable, nondiscriminatory and in no event higher than the ceiling charge provided for in this agreement, as such ceiling charge may be increased pursuant to the provisions of this agreement.

2. This agreement may be terminated either in whole or in part by the Customer at any time by delivery to the Commission of a written notice of termination stating the date after receipt of the notice upon which such termination shall become effective.

3. Upon termination of this agreement by the Commission pursuant to (i), (ii) or (iii) of Section 1 of this article or by the Customer pursuant to Section 2 of this article, the Customer shall pay to the Commission a termination charge for each unit of separative work which,

but for such termination, would have been furnished under this agreement. Such termination charge shall be equal to a fraction established herein of the then current charge per kilogram unit of separative work. The then current charge per kilogram unit of separative work shall be determined in accordance with the provisions of Article III hereof that would have been applied to enriching services furnished on the date of the receipt of the notice of termination. The fractions to be applied in determining the termination charge are set forth below as a function of the time period between the date of receipt of the notice of termination and the date when the separative work unit subject to the termination charge would have been furnished under the agreement.

Time Period	Fraction of Effective Charge Per Kg Unit of Separative Work
Less than 1 year	0.25
1 year or more but less than 2 years	0.20
2 years or more but less than 3 years	0.15
3 years or more but less than 3-1/2 years	0.10
3-1/2 years or more	0

The amount of enriching services which, but for such termination, would have been furnished under this agreement shall be determined in accordance with the established Commission standard table of enriching services that would have been applied to enriching services furnished on the date of the receipt of the notice of such termination. Notwithstanding the foregoing provisions of this section, the Contracting Officer shall determine the extent to which, if any, that such termination charges exceed the probable costs to the Commission which may arise from such termination and such charges shall be correspondingly reduced. Such determination shall be final. Upon request of the Customer prior to its delivery of a notice of termination, the Commission will advise the Customer of the approximate amount of termination charges which would become payable by the Customer hereunder in the event of termination by the Customer.

4. Unless otherwise agreed, upon termination of this agreement, feed material delivered by the Customer for the performance of the enriching services so terminated or, to the extent such feed material is unavailable to the Commission, uranium equal in value to such feed material as determined by the Commission in accordance with the established Commission pricing policy shall be returned to the Customer.

ARTICLE XI - AMENDMENTS

The provisions of this agreement have been developed in the light of the uncertainties necessarily attendant to an agreement which may be for a period as great as 30 years. Accordingly, at the request of either the Commission or the Customer, the parties will negotiate and, to the extent mutually agreed, amend this agreement without additional consideration to eliminate or reduce restrictive provisions which the parties determine are inequitable, discriminatory or no longer required to protect their interests; provided, however, any such amendment shall be consistent with the provisions of the Federal Register Notice entitled "Uranium Enrichment Services Criteria," ______________ F. R. ____________, 1966, as the same may be amended from time to time.

ARTICLE XII - NOTICES

All notices and communications pursuant to this agreement from either party to the other (except notices published in the Federal Register) shall be in writing and shall be sent to the following addresses:

To the Commission:

To the Customer:

Either party may, by notice given as aforesaid, change its address for notices and communications to be given thereafter.

ARTICLE XIII - GENERAL TERMS AND CONDITIONS - CONFLICTS

1. The General Terms and Conditions attached hereto are hereby made a part of this agreement.

2. In the event of any conflict between the articles of this agreement and the attached General Terms and Conditions, the former shall govern.

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IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

UNITED STATES OF AMERICA

BY: UNITED STATES ATOMIC ENERGY COMMISSION

BY: ______________________________
Contracting Officer

____

BY: ______________________________

TITLE: ______________________________

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GENERAL TERMS AND CONDITIONS

(Agreement for Furnishing Uranium Enrichment Services)

1. Officials Not to Benefit. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

2. Covenant Against Contingent Fees. The Customer warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Customer for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this agreement without liability or in its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fees.

3. Force Majeure. Neither the Government nor the Customer shall be liable under this agreement for damages occasioned by failure to perform its obligations hereunder if such failure arises out of causes beyond the control and without the fault or negligence of the party so failing to perform or its contractors or agents.

4. Limitation on Commission's Liability. The Commission's obligation to deliver both enriched uranium and tails material of the assay required by this agreement and conforming to the Commission's established specifications shall be deemed to have been satisfied (except as to claims arising out of unexcused delays in delivery) upon final acceptance of such material by the Customer.

5. Disclaimer. Neither the Government, the Commission, nor persons acting on behalf of the Commission warrant that materials delivered to the Customer under this agreement (i) will not result in injury or damage when used for any purpose, or (ii) are of merchantable quality, or (iii) are fit for any particular purpose.

6. Patent Indemnification. The Customer agrees to indemnify the Government, the Commission, and persons acting on behalf

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of the Commission against liability, including costs and expenses incurred, for infringement of any Letters Patent occurring in the performance of any service, analysis, or test performed for the Customer as a result of following specific instructions of the Customer in connection therewith, or occurring in the utilization by the Customer of any material procured hereunder; provided, that insofar as such materials are used or services utilized in the performance of a Government contract, this indemnity agreement shall not apply unless such Government contract contains provisions indemnifying the Government against patent infringement.

7. Disputes. a. Except as otherwise provided in this agreement, any dispute concerning a question of fact arising under this agreement which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to Customer. The decision of the Contracting Officer shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Customer mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Commission. The decision of the Commission or its duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent or capricious or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this article, the Customer shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, Customer shall proceed diligently with the performance of the agreement and in accordance with the Contracting Officer's decision.

b. This "Disputes" clause does not preclude consideration of law questions in connection with decisions provided for in Section a. above; provided, that nothing in this agreement shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

8. Assignment. Neither this agreement nor any interest therein nor claim thereunder shall be assigned or transferred by the Customer except as expressly authorized in writing by the Contracting Officer.

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9. Delivery - Title. a. All material delivered or returned to the Customer hereunder shall be delivered to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at the Commission facility from which such material is to be furnished. Title to such material shall pass to the Customer upon delivery at such point.

b. All material delivered or returned to the Commission f.o.b. Customer's hereunder shall be delivered to the Commission, at the Commission facility to vehicle or commercial conveyance, the Customer, at the time of be designated by the Commission. shall notify the Commission of the date and shipment of material, and expected date of arrival. Title to such method of shipment, pass to the Government upon delivery at such point, material shall title to any rejected material removed by the provided that pursuant to Section 5 of Article II hereof shall pass Commission to the Government upon such removal.

10. Fulfillment of Obligations Through Operator. The Customer understands and agrees that the Commission may fulfill its obligations under this agreement through the operator of any of its facilities. No such operator is authorized to modify the terms of this agreement, waive any requirement thereof, or settle any claim or dispute arising hereunder.

11. Permits - Laws, Regulations and Ordinances. The Customer shall procure all necessary permits or licenses (including any special nuclear material licenses) and comply with all applicable laws, regulations, and ordinances of the United States and of any State, territory, or political subdivision.

12. Containers and Equipment. a. All shipments of material from the Commission to the Customer, and from the Customer to the Commission, will be made in Customer-furnished containers; provided, however, that in the event the Commission determines that the required containers are not reasonably available from commercial sources, the Commission may furnish such containers. Any AEC-owned containers to be used for shipment of material to the Commission will be made available to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at a Commission facility designated by the Commission, unless otherwise agreed. Customer-furnished containers and equipment shall be delivered to a Commission facility designated by the Commission within a reasonable time specified by the Commission prior to the scheduled delivery of materials to be shipped to the Customer in such containers and equipment. Customer-furnished containers or equipment will be used by the Commission only for the shipment of material from the Commission to the Customer and for temporary storage of material shipped therein.

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b. All containers and equipment, whether AEC-owned or Customer-furnished, must meet Commission regulations, specifications and practices as to safety, design criteria, cleanliness and freedom from contamination in effect at the time furnished, utilized or returned, of which the Commission shall be the sole judge. In the event feed material is furnished to the Commission in non-AEC-owned containers and tails material is to be delivered to the Customer, the Commission shall utilize to the extent practicable such non-AEC-owned containers for shipments of tails material if so desired by the Customer. The Commission will promptly return non-AEC-owned containers and other equipment identified as "Returnable" to the Customer, but will not be responsible for any loss of or damage to such containers or equipment except as may result from the fault or negligence of the Commission, its contractors, or agents. Such return shipments by the Commission will be made f.o.b. Customer's vehicle or commercial conveyance at the Commission facility to which they were shipped.

c. Title to AEC-owned containers and equipment shall remain in the Government. Customer shall pay such rental charge, for such containers and equipment as shall be established by the Commission for general application to users of such AEC-owned property. The Customer will promptly return AEC-owned containers and equipment to the Commission facility from which received, f.o.b. Customer's vehicle or commercial conveyance at the Commission facility. Customer will not be responsible for any loss of or damage to AEC-owned containers or equipment except as may result from the fault or negligence of the Customer, its contractors or agents. AEC-owned containers or equipment will be used only for shipment of material to and from the Commission and for temporary storage of material shipped therein.

d. Whenever material or containers are shipped to the Commission or AEC-owned containers are returned to the Commission, and the Commission elects to decontaminate the containers, railroad cars, trucks or other shipping vehicles or the Commission's unloading area and machinery, because the containers, or the material or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies having jurisdiction over such matters, the Customer shall pay the Commission the full cost of such decontamination as determined by the Commission in accordance with established Commission pricing policy.

e. Whenever material or containers are shipped by the Commission and the Customer elects to decontaminate the containers, railroad cars, trucks, or other shipping vehicles or the Customer's unloading area and machinery, because the containers, or the material, or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies of the United States having jurisdiction over such matters, the Commission shall, if such failure results from the fault or negligence of the Commission,

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its contractors, or agents pay the Customer for the reasonable cost of such decontamination as determined by the Commission.

13. Determination of Material Quantities and Properties - Resolution of Measurement Differences. The following provisions and procedures shall apply to the determination of quantities and properties of material, and the resolution of measurement differences resulting from such determination, with respect to special nuclear material and tails material delivered to the Customer and with respect to feed material furnished by the Customer to the Commission. For the purposes of this article, the terms "supplier" and "receiver" shall refer to the Commission and the Customer as the case may be. The supplier will promptly furnish the receiver a statement of the quantities and properties of the material transferred including a statement of the gross weight of the container plus material and the tare weight of such container.

a. The Commission samples obtained at a Commission facility using the Commission's procedures will be the official samples and shall be binding upon the Commission, the Customer and the umpire unless the Commission and the Customer agree upon the use of other samples, procedures or sampling locations.

b. The following provisions and procedures apply to the determination of the net weight of material transferred as determined by the gross weight of the container plus material less the tare weight of such container. The net weight of material transferred shall be determined prior to delivery to the Customer or acceptance of delivery by the Commission, as the case may be, at a Commission facility using the Commission's procedures and facilities unless the Commission and the Customer agree upon other procedures or facilities. Upon written request submitted at least 30 days prior to the scheduled delivery of material, the Customer shall be given an opportunity to observe, at the Customer's expense, the weighing of the container and the container plus material and the taking of official samples by the Commission. The Commission shall notify the Customer of the dates and places for observance of such events. The net weight of material transferred shall be as determined by the results of such weighings and shall not be subject to the provisions of subsections c. and d. below.

c. If, after determination pursuant to subsection b. above of the net weight of the material transferred, the receiver does not accept the supplier's statement of the other quantities and properties of the material transferred, the receiver shall within thirty (30) days after the receipt of the material or the supplier's statement of quantities and properties, whichever is later, submit a notice of disagreement in writing to the supplier. The notice of disagreement shall include measurement and/or analysis data supporting the disagreement. If such notice of disagreement is not submitted within such thirty (30) days, the supplier's measurements will be final and binding upon both parties. If the disagreement is solely with respect to quantitative determinations within specification limits, the receiver may use or dispose of the material in accordance with applicable State and Federal regulations prior to resolution of the disagreement. If the disagreement is with respect to whether the material is within specification limits, the receiver may handle the material as necessary for storage or protection against health and safety hazards; provided, however, should the receiver further use or dispose of the material, the supplier's measurements will be final and binding on both parties.

d. In the case of a disagreement concerning results obtained from analysis of a sample which is not resolved by mutual agreement, an official sample shall be submitted to an umpire mutually agreed upon for analysis. The umpire's results shall be conclusive on both parties.

(i) In the case of a disagreement with respect to whether or not the material is within specification limits, the receiver will pay the umpire cost if the umpire's result is within specification limits, and the supplier will pay the umpire cost if the umpire's result is not within specification limits.

(ii) In the case of a disagreement with respect to quantitative determinations within specification limits, the party whose result is furthest from the umpire's result will pay the umpire cost; provided, that in the event the umpire's result is equidistant between the supplier's and the receiver's results, the parties will each bear one-half of the umpire cost.

(iii) As used in this subsection d, the phrase umpire cost means the umpire's charges, plus the additional cost, if any, of the packaging, handling, and transporting of the official sample to and from the umpire. In the event that the umpire is to employ an official sample for more than one determination, the foregoing umpire costs shall be allocated to such determinations as mutually agreed by the parties prior to the furnishing of the sample to the umpire, or in the absence of such agreement, as determined by the umpire.

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Uranium Enriching Agreement No. ________

AGREEMENT FOR FURNISHING

IN SITU URANIUM ENRICHMENT SERVICES

THIS AGREEMENT, entered into this __________ day of __________, 1969, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter sometimes referred to as the "Commission"), and ______________________________ (hereinafter referred to as the "Customer");

WITNESSETH THAT:

WHEREAS, the Customer holds enriched uranium under a Lease Agreement between the Commission and the Customer; and

WHEREAS, the Customer expects to have requirements for in situ uranium enriching services; and

WHEREAS, the Commission has authority to provide the in situ enriching services expected to be required by the Customer and is willing to provide such services, all under the terms and conditions more particularly hereinafter set forth; and

WHEREAS, this agreement is authorized by the Atomic Energy Act of 1954, as amended;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

ARTICLE I - DEFINITIONS

As used throughout this agreement, the following terms shall have the meaning set forth below:

1. The term "Act" means the Atomic Energy Act of 1954, as amended.

2. The term "Commission" means the United States Atomic Energy Commission or any duly authorized representative thereof, including the Contracting Officer except for the purpose of deciding an appeal under the article entitled "Disputes".

3. The term "Commission's established specifications" means the specifications for purity and other physical or chemical properties of special nuclear material and source material (including tails material) as published by the Commission in the Federal Register from time to time applicable to material subject to this agreement on the date of delivery of such material.

4. The term "Commission facility" means a laboratory, plant, office, or other establishment operated by or on behalf of the Commission.

5. The term "Contracting Officer" means the person executing this agreement on behalf of the Government, and includes his successors or any duly authorized representative of any such person.

6. The term "depleted uranium" means uranium depleted in the isotope 235.

7. The term "enriched uranium" means uranium enriched in the isotope 235.

8. The term "enriching services" means the separative work necessary to enrich or further enrich uranium in the isotope 235.

9. The term "established Commission pricing policy" means any applicable price or charge in effect at the time of performance of any services under this agreement (i) published by the Commission in the Federal Register for material or services subject to this agreement, or (ii) in the absence of such a published figure, determined in accordance with the Commission's Pricing Policy; provided, however, that for purposes of this definition, any enriching services performed by the Commission shall be deemed to have been performed on the date of crediting the Customer's lease account. A statement of such Pricing Policy will be furnished the Customer upon request. The Commission's published prices or charges, as well as its Pricing Policy, may be amended from time to time.

10. The term "established Commission standard table of enriching services" means the table published from time to time by the Commission in the Federal Register and in effect at the time of delivery of any enriched uranium to the Customer under this agreement, which table is to be used in connection with the furnishing of enriching services by the Commission to determine the relationship between feed materials, enriched uranium produced therefrom and separative work thereby required to be performed as a function of the quantities and assays of such materials.

11. The term "feed material" means the uranium constituting source material or special nuclear material to be furnished by the Customer to the Commission in connection with the providing of enriching services to the Customer under this agreement; provided, however, it shall not, except as may otherwise be agreed by the Commission and the Customer from time to time mean uranium having an assay (weight percent U-235) below 0.711 unless such uranium was previously distributed by the Commission or has been derived solely from uranium previously distributed by the Commission.

12. The term "in situ enriching services" means the mechanism under which the Customer acquires title to enriched uranium held under lease from the Commission by furnishing feed material and paying the charges for enriching services in accordance with the established Commission pricing policy and the established Commission standard table of enriching services.

13. The term "Lease Agreement" means the SNM Lease Agreement No. ______________ between the Commission and the Customer under which the Customer holds enriched uranium or any extension or amendment of such document.

14. The term "natural uranium" means uranium which had neither been enriched nor depleted in the isotope 235.

15. The term "persons acting on behalf of the Commission" includes employees and contractors of the Commission, and

employees of such contractors, who implement or participate in the implementing of this agreement pursuant to their employment or their contracts with the Commission.

16. The term "source material" means (i) uranium, thorium, or any other material which is determined by the Commission pursuant to the provisions of section 61 of the Act to be source material; or (ii) ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time.

17. The term "special nuclear material" means (i) plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material, but does not include source material; or (ii) any material artificially enriched by any of the foregoing, but does not include source material.

18. The term "tails material" means uranium produced as a result of the performance of enriching operations, and with an isotope 235 assay less than 0.711 weight percent U-235 in total uranium.

ARTICLE II - IN SITU ENRICHING SERVICES - SCHEDULING - SPECIFICATIONS - RESTRICTION ON FURNISHING FEED MATERIAL OF FOREIGN ORIGIN

1. During the term of this agreement the Commission shall provide to the Customer and the Customer may obtain from the Commission the Customer's requirements for in situ enriching services all in accordance with the terms and conditions as hereinafter set forth.

2. The Customer may at any time during the term of this agreement, with respect to material which the Customer has held under the Lease Agreement for a period of at least ninety (90) days, request the Commission to credit the Customer's lease account with an amount of enriched uranium which is not of a different assay or greater in amount than the amount of enriched uranium projected to be held by the Customer under the Lease Agreement as of the requested date of accreditation. Such

projection shall be made in accordance with procedures and methods of calculating consumption accepted by the Commission and shall not be made for a period greater than 179 days after the last report made pursuant to the Lease Agreement regarding the status of material held under such agreement.

3. The Commission shall so credit the Customer's lease account if the Customer has furnished to the Commission feed material in such quantities and assays and has paid the Commission the charges stated in Article III hereof for such enriching services as are required, in accordance with the established Commission standard table of enriching services, to obtain the material of higher U-235 assay requested to be credited to such lease account. Deliveries of feed material to the Commission shall precede the requested date of accreditation, pursuant to section 2 above, by thirty (30) days.

4. It is recognized that deliveries of feed material to the Commission under Section 3 above may vary slightly from the quantity or assay intended to be delivered. It is agreed that variations in (i) quantities of material delivered of not greater than 0.50% in case of material of not more than 5% assay (weight percent U-235) and not greater than 0.25% in case of material of greater than 5% assay (weight percent U-235); and (ii) assay within the variations permitted by the Commission's established specifications shall be acceptable, provided, however, that the amount to be paid to the Commission in such event shall be based on the relationship of the feed material actually furnished to the Commission to the enriched uranium credited to the Customer's lease account, such amount to be determined in accordance with the established Commission standard table of enriching services and the established Commission pricing policy; and provided, further, that in the event the quantity of feed material actually furnished and acceptable hereunder is greater than that required, under the established Commission standard table of enriching services, to obtain the quantity and assay of enriched uranium credited to the Customer's lease account such excess feed material shall be delivered to the Customer at the Customer's expense, and the excess feed material shall not be taken into consideration in determining the amount to be paid to the Commission. Any change in such established Commission standard table shall require at least 180 days' prior notice to the Customer by publication in the Federal Register or otherwise.

5. All feed material to be furnished to the Commission hereunder shall be in the form of UF6 and conform to the Commission's established specifications for such material. Any changes in such specifications shall require at least 180 days' prior notice to the Customer by publication in the Federal Register or otherwise. Determinations of the quantities and properties of all such material delivered to the Commission shall be made in accordance with the provisions of this agreement. Upon final determination that any such material is not of the assay required by this agreement or does not conform to the Commission's established specifications for such material, the Customer shall thereupon promptly elect either to (a) remove the rejected material, or (b) provide the Commission with instructions for its disposition. Any such removal or other disposition in accordance with (a) or (b) of the preceding sentence shall be at the expense of the Customer and the Customer shall reimburse the Commission for the reasonable cost of disposing of such material. Such reasonable cost shall be determined in accordance with the established Commission pricing policy.

6. Except as may be otherwise authorized by the provisions of the Federal Register Notice entitled "Uranium Enrichment Services Criteria," 31 Fed. Reg. 16479, December 23, 1966, as the same may be amended from time to time, feed material of foreign origin shall not be furnished by the Customer hereunder if the enriched uranium to be obtained from the Commission hereunder is intended for use in a utilization facility, as defined in the Act, within or under the jurisdiction of the United States.

ARTICLE III - CHARGES FOR ENRICHING SERVICES - CEILING CHARGE - OTHER CHARGES

1. The charges to be paid to the Commission for in situ enriching services provided to the Customer hereunder shall be determined in accordance with the established Commission pricing policy for enriching services; provided, however, that the unit charge for enriching services during the term of this agreement shall in no event exceed a ceiling charge of $30.00 (subject to possible adjustment pursuant to Section 3 of this article) per Kg unit of separative work for separation of U-235 from U-238 as defined in the established Commission pricing policy.

2. It is recognized that the Commission may, from time to time during the term of this agreement, either increase or decrease its unit charge for enriching services. Any increase in such charge shall require at least 180 days' prior notice to the Customer, by publication in the Federal Register or otherwise.

3. With the view of arriving at an equitable adjustment of the ceiling charge provided for in Section 1 above in case the costs of labor and/or electric power utilized in the performance of enriching services should, subsequent to June 30, 1965, vary upward or downward, said charge shall be subject to adjustment in the event of increases or decreases in costs of labor and/or electric power in accordance with the following method:

A. Labor. For the purpose of this adjustment the portion of the ceiling charge representing labor is accepted as $5.00. This amount accepted as representing labor shall be adjusted on the basis of the monthly reports of average hourly earnings of production workers in the Manufacturing Industries, Non-Durable-Goods Industries Division, Chemical and Allied Products Subdivision, compiled and published by the U. S. Department of Labor in the Monthly Labor Review of the Bureau of Labor Statistics. An arithmetical average of the monthly report figures for each six months' period after June 30, 1965, shall be computed, and the percentage increase, if any, will be obtained by comparison of such average with the published average hourly earnings figure of $2.87 for the base month of June 1965. The adjustments, if any, in labor costs will be obtained by applying such percentage to the amount accepted as representing labor above.

B. Electric Power. For the purpose of this adjustment the portion of the ceiling charge representing power is accepted as $15.00. This amount accepted as representing power shall be adjusted on the basis of the average cost per kilowatt hour of power used in all of the Commission's gaseous diffusion plants. The Commission shall determine the average cost of power for each six months' period after June 30, 1965, and the percentage increase, if any, will be obtained by comparison of such average with the Commission's average cost per kilowatt hour of power for the base six months' period commencing on January 1, 1965, and ending on June 30, 1965. The adjustment, if any, in power costs will be obtained by applying such percentage to the amount accepted as representing power above.

C. General. In no event shall the ceiling charge be less than $30 per Kg unit of separative work for separation of U-235 from U-238, as defined in the established Commission pricing policy. If for any reason the statistics published by the U. S. Department of Labor, referred to above, are not available, adjustment for labor costs will be made by using a similar report or index selected by the Commission.

4. In addition to the charges to be paid for in situ enriching services, the Customer shall pay the Commission's service charges, if any, for any special service rendered, at the Customer's request, in connection with providing in situ enriching services hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall also pay such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE IV - COMMISSION FACILITY FURNISHING TAILS MATERIAL - POINT OF DELIVERY FOR FEED MATERIAL

Tails material delivered or feed materials returned to the Customer shall be furnished by, and feed material furnished to the Commission shall be delivered to, the Commission facility or facilities specified by the Commission.

ARTICLE V - WARRANTY OF FEED MATERIAL FURNISHED BY CUSTOMER - INDEMNITY

The Customer warrants that all feed material furnished to the Commission hereunder is of the assay required by this agreement and conforms to the Commission's established specifications for such material. Notwithstanding the provisions of the article hereof entitled "Force Majeure," the Customer shall hold and save the Government, the Commission, and persons acting on behalf of the Commission harmless from any and all damages, liabilities and costs arising out of or in connection with a breach of this warranty; provided, however, that the Customer shall not be responsible for any damange, liability or cost (1) which would have been incurred even if the Customer had not breached this warranty, or (2) which is incurred subsequent to final acceptance of such feed material by the Commission. The Customer shall in no event be liable for indirect or consequential damages and nothing contained herein shall deprive the Customer of any rights under indemnification agreements entered into pursuant to Section 170 of the Act.

ARTICLE VI - CUSTOMER'S OPTION TO ACQUIRE TAILS MATERIAL

1. It is recognized that the actual performance of enriching services results in the generation of tails material. The Customer shall have an option, exercisable upon written notice to the Commission at the time of delivery of the related quantity of feed material, to acquire tails material from the Commission (but not necessarily tails material resulting from feed material furnished by the Customer) in accordance with the terms and conditions as hereinafter set forth. Tails material subject to the Customer's option but not taken shall remain the property of the Government.

2. In the event the Customer elects to exercise its option to acquire tails material from the Commission, the written notice so advising shall specify the quantities (Kg U) of tails material desired. The maximum quantity of tails material to be subject to the Customer's option shall be equal to the difference between the total quantity of uranium supplied by the Customer as feed material and the total quantity of enriched uranium credited to the Customer's lease account; provided, however, that the maximum quantity so calculated shall be reduced to the extent of processing losses as determined by the Commission. The U-235 assay of tails material delivered to the Customer shall be within the sole discretion of the Commission.

3. Unless otherwise agreed, delivery of tails material shall be at the same time as the crediting of related enriched uranium to the Customer's lease account.

4. All tails material delivered to the Customer hereunder shall be in the form of UF_6 and shall conform to the Commission's established specifications for such material. The quantities and properties of tails material shall be determined in accordance with the provisions of this agreement.

5. It is recognized that deliveries of tails material to the Customer may vary slightly from the quantity intended to be delivered. It is agreed that variations in quantities of tails material delivered of not greater than 0.50% shall be acceptable.

6. Except as provided in Section 7, no charge will be made in connection with furnishing tails material to the Customer. The Customer shall receive no credit for tails material subject to its option but not taken.

7. The Customer shall pay the Commission's service charges, if any, for withdrawal, handling and packaging, and for any other special service rendered, at the Customer's request, in connection with furnishing tails material hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall pay all such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE VII - TERM OF AGREEMENT

The term of this agreement shall commence as of the date of execution thereof and continue through June 30, 1973, unless sooner terminated in accordance with the agreement terms.

ARTICLE VIII - PAYMENT

1. The Customer shall pay to the Commission the charges stated in Article III hereof for in situ enriching services furnished to the Customer hereunder. All such payments shall be made on or before the requested date of accreditation of Customer's lease account. In the event of disagreement as to the quantities or properties of uranium delivered by or to the Customer, provisional payments shall be made on the basis of the Commission's figures, and appropriate adjustments in amounts paid made promptly upon resolution of such disagreements in accordance with the provisions of this agreement.

2. Any other amounts due the Commission under this agreement shall be paid within thirty (30) days after date of invoice therefor in accordance with instructions furnished with such invoice. The Commission shall ordinarily submit an invoice for such other amounts promptly after each accreditation of the Customer's lease account. Checks shall be payable to the United States Atomic Energy Commission and, unless otherwise directed by the Commission, shall be mailed to the Director, Finance Division, United States Atomic Energy Commission, P. O. Box E, Oak Ridge, Tennessee 37830.

3. Payment of use charges and for consumption of material shall be made by the Customer in accordance with the Lease Agreement.

4. The Customer shall pay interest at the per annum rate (365-day basis) established from time to time by the Commission for general application to monies due the Commission on all amounts not received by the Commission within thirty (30) days from date of invoice, such interest to commence on the thirty-first (31st) day from date of invoice.

ARTICLE IX - TERMINATION - SUSPENSION

1. In addition to any other rights the Commission may have, the Commission reserves the right, at no cost to the Government, to terminate or suspend this agreement, by written notice to the Customer, in the event (i) the right of the Customer to possess enriched uranium to be credited to the Customer's lease account hereunder expires or is suspended or terminated by any authority having power to take such action; (ii) the Customer shall fail to perform its obligations hereunder, and shall fail to take corrective action within 30 days of the date of the written notice of such failure to perform as provided above, unless such failure arises out of causes beyond the the control and without the fault or negligence of the Customer, its contractors or agents; or (iii) if bankruptcy or insolvency proceedings are commenced by or against the Customer or the owner of such facility or facilities, or if receivers are appointed to take possession of the business of the Customer or the business of the owner of such facility or facilities.

2. This agreement may be terminated either in whole or in part by the Customer at any time by delivery to the Commission of a written notice of termination stating the date after receipt of the notice upon which such termination shall become effective.

ARTICLE X - NOTICES

All notices and communications pursuant to this agreement from either party to the other (except notices published in the Federal Register) shall be in writing and shall be sent to the following addresses:

To the Commission:

To the Customer:

Either party may, by notice given as aforesaid, change its address for notices and communications to be given thereafter.

ARTICLE XI - GENERAL TERMS AND CONDITIONS - CONFLICTS

1. The General Terms and Conditions attached hereto are hereby made a part of this agreement.

2. In the event of any conflict between the articles of this agreement and the attached General Terms and Conditions, the former shall govern.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

UNITED STATES OF AMERICA

BY: UNITED STATES ATOMIC ENERGY COMMISSION

BY: ______________________________
Contracting Officer

____

BY: ______________________________

TITLE: ______________________________

A 1438

GENERAL TERMS AND CONDITIONS

(Agreement for Furnishing *In Situ* Uranium Enrichment Services)

1. **Officials Not to Benefit.** No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

2. **Covenant Against Contingent Fees.** The Customer warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Customer for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this agreement without liability or in its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

3. **Force Majeure.** Neither the Government nor the Customer shall be liable under this agreement for damages occasioned by failure to perform its obligations hereunder if such failure arises out of causes beyond the control and without the fault or negligence of the party so failing to perform or its contractors or agents.

4. **Limitation on Commission's Liability.** The Commission's obligation to deliver tails material of the assay required by this agreement and conforming to the Commission's established specifications shall be deemed to have been satisfied (except as to claims arising out of unexcused delays in delivery) upon final acceptance of such material by the Customer.

5. **Disclaimer.** Neither the Government, the Commission, nor persons acting on behalf of the Commission warrant that materials delivered or credited to the Customer under this agreement (i) will not result in injury or damage when used for any purpose, or (ii) are of merchantable quality, or (iii) are fit for any particular purpose.

6. **Patent Indemnification.** The Customer agrees to indemnify the Government, the Commission, and persons acting on behalf of the Commission against liability, including costs and expenses incurred, for infringement of any Letters Patent occurring in the performance of any service, analysis, or test performed for the Customer as a result of following specific instructions of the Customer in connection therewith, or occurring in the utilization by the Customer of any material procured hereunder; provided, that

insofar as such materials are used or services utilized in the performance of a Government contract, this indemnity agreement shall not apply unless such Government contract contains provisions indemnifying the Government against patent infringement.

7. Disputes.

a. Except as otherwise provided in this agreement, any dispute concerning a question of fact arising under this agreement which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Customer. The decision of the Contracting Officer shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Customer mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Commission. The decision of the Commission or its duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this article, the Customer shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Customer shall proceed diligently with the performance of the agreement and in accordance with the Contracting Officer's decision.

b. This "Disputes" clause does not preclude consideration of law questions in connection with decisions provided for in Section a, above; provided, that nothing in this agreement shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

8. Assignment. Neither this agreement nor any interest therein nor claim thereunder shall be assigned or transferred by the Customer except as expressly authorized in writing by the Contracting Officer.

9. Delivery—Title.

a. All material delivered or returned to the Customer hereunder shall be delivered to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at the Commission facility from which such material is to be furnished. Title to such material shall pass to the Customer upon delivery at such point. Title to the enriched uranium credited to the Customer's lease account pursuant to Section 3 of Article II hereof shall pass to the Customer at the time the Customer's lease account is credited.

b. All material delivered to the Commission hereunder shall be delivered to the Commission, f.o.b. Customer's vehicle or commercial conveyance, at the Commission facility to be designated by the Commission. The Customer, at the time of shipment of material, shall notify the Commission of the date and method of shipment, and expected date of arrival. Title to such material shall pass to the Government upon delivery at such point.

10. Fulfillment of Obligations Through Operator. The Customer understands and agrees that the Commission may fulfill its obligations under this agreement through the operator of any of its facilities. No such operator is authorized to modify the terms of

this agreement, waive any requirement thereof, or settle any claim or dispute arising hereunder.

11. **Permits—Laws, Regulations and Ordinances.** The Customer shall procure all necessary permits or licenses (including any special nuclear material licenses) and comply with all applicable laws, regulations, and ordinances of the United States and of any State, territory or political subdivision.

12. **Containers and Equipment.**

a. All shipments of material from the Commission to the Customer, and from the Customer to the Commission, will be made in Customer-furnished containers; provided, however, that in the event the Commission determines that the required containers are not reasonably available from commercial sources, the Commission may furnish such containers, and provided further, the Commission may, at its election, furnish such containers for feed material to be furnished by the Customer where it is determined to be in the best interest of the Government to do so. Any AEC-owned containers to be used for shipment of material to the Commission will be made available to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at a Commission facility designated by the Commission, unless otherwise agreed. Customer-furnished containers and equipment shall be delivered to a Commission facility designated by the Commission within a reasonable time specified by the Commission prior to the scheduled delivery of materials to be shipped to the Customer in such containers and equipment. Customer-furnished containers or equipment will be used by the Commission only for the shipment of material from the Commission to the Customer and for temporary storage of material shipped therein.

b. All containers and equipment, whether AEC-owned or Customer-furnished, must meet Commission regulations, specifications and practices as to safety, design criteria, cleanliness and freedom from contamination in effect at the time furnished, utilized or returned, of which the Commission shall be the sole judge. In the event feed material is furnished to the Commission in non-AEC-owned containers and tails material is to be delivered to the Customer, the Commission shall utilize to the extent practicable such non-AEC-owned containers for shipments of tails material if so desired by the Customer. The Commission will promptly return non-AEC-owned containers and other equipment identified as "Returnable" to the Customer, but will not be responsible for any loss of or damage to such containers or equipment except as may result from the fault or negligence of the Commission, its contractors, or agents. Such return shipments by the Commission will be made f.o.b. Customer's vehicle or commercial conveyance at the Commission facility to which they were shipped.

c. Title to AEC-owned containers and equipment shall remain in the Government. Customer shall pay such rental charge, for such containers and equipment as shall be established by the Commission for general application to users of such AEC-owned property. The Customer will promptly return AEC-owned containers and equipment to the Commission facility from which received, f.o.b. Customer's vehicle or commercial conveyance at the Commission facility. Customer will not be responsible for any loss of or damage to AEC-owned containers or equipment except as may result from the fault or negligence of the Customer, its contractors, or agents.

AEC-owned containers or equipment will be used only for shipment of material to and from the Commission and for temporary storage of material shipped therein.

d. Whenever material or containers are shipped to the Commission or AEC-owned containers are returned to the Commission, and the Commission elects to decontaminate the containers, railroad cars, trucks or other shipping vehicles or the Commission's unloading area and machinery, because the containers, or the material or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies having jurisdiction over such matters, the Customer shall pay the Commission the full cost of such decontamination as determined by the Commission in accordance with established Commission pricing policy.

e. Whenever material or containers are shipped by the Commission and the Customer elects to decontaminate the containers, railroad cars, trucks, or other shipping vehicles or the Customer's unloading area and machinery, because the containers, or the material, or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies of the United States having jurisdiction over such matters, the Commission shall, if such failure results from the fault or negligence of the Commission, its contractors, or agents, pay the Customer for the reasonable cost of such decontamination as determined by the Commission.

13. Determination of Material Quantities and Properties—Resolution of Measurement Differences. The following provisions and procedures shall apply to the determination of quantities and properties of material, and the resolution of measurement differences resulting from such determination, with respect to the material delivered to the Customer and with respect to feed material furnished by the Customer to the Commission. For the purposes of this article, the terms "supplier" and "receiver" shall refer to the Commission and the Customer as the case may be. The supplier will promptly furnish the receiver a statement of the quantities and properties of the material transferred including a statement of the gross weight of the container plus material and the tare weight of such container.

a. The Commission samples obtained at a Commission facility using the Commission's procedures will be the official samples and shall be binding upon the Commission, the Customer and the umpire unless the Commission and the Customer agree upon the use of other samples, procedures or sampling locations.

b. The following provisions and procedures apply to the determination of the net weight of material transferred as determined by the gross weight of the container plus material less the tare weight of such container. The net weight of material transferred shall be determined prior to delivery to the Customer or acceptance of delivery by the Commission, as the case may be, at a Commission facility using the Commission's procedures and facilities unless the Commission and the Customer agree upon other procedures or facilities. Upon written request submitted at least 30 days prior to the scheduled delivery of material, the Customer shall be given an opportunity to observe, at the Customer's expense, the weighing of the container and the container plus material and the taking of official samples by the Commission. The Commission shall notify the Customer of the dates and places for observance of such events. The net weight of material transferred shall be as determined by the results of such weighings and shall not be subject to the provisions of subsections c and d below.

c. If, after determination pursuant to subsection b above of the net weight of the material transferred, the receiver does not accept the supplier's statement of the other quantities and properties of the material transferred, the receiver shall within thirty (30) days after the receipt of the material or the supplier's statement of quantities and properties, whichever is later, submit a notice of disagreement in writing to the supplier. The notice of disagreement shall include measurement and/or analysis data supporting the disagreement. If such notice of disagreement is not submitted within such thirty (30) days, the supplier's measurements will be final and binding upon both parties. If the disagreement is solely with respect to quantitative determinations within specification limits, the receiver may use or dispose of the material in accordance with applicable State and Federal regulations prior to resolution of the disagreement. If the disagreement is with respect to whether the material is within specification limits, the receiver may handle the material as necessary for storage or protection against health and safety hazards; provided, however, should the receiver further use or dispose of the material, the supplier's measurements will be final and binding on both parties.

d. In the case of a disagreement concerning results obtained from analysis of a sample which is not resolved by mutual agreement, an official sample shall be submitted to an umpire mutually agreed upon for analysis. The umpire's results shall be conclusive on both parties.

(i) In the case of a disagreement with respect to whether or not the material is within specification limits, the receiver will pay the umpire cost if the umpire's result is within specification limits, and the supplier will pay the umpire cost if the umpire's result is not within specification limits.

(ii) In the case of a disagreement with respect to quantitative determinations within specification limits, the party whose result is furthest from the umpire's result will pay the umpire cost; provided that in the event the umpire's result is equidistant between the supplier's and the receiver's results, the parties will each bear one-half of the umpire cost.

(iii) As used in this subsection d, the phrase, "umpire cost," means the umpire's charges, plus the additional cost, if any, of the packaging, handling, and transporting of the official sample to and from the umpire. In the event that the umpire is to employ an official sample for more than one determination, the foregoing umpire costs shall be allocated to such determinations as mutually agreed by the parties prior to the furnishing of the sample to the umpire, or in the absence of such agreement, as determined by the umpire.

A 1443

SEP 2 1970

AGREEMENT FOR FURNISHING URANIUM ENRICHMENT SERVICES

THIS AGREEMENT, entered into this _____ day of ___________, 1970, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter sometimes referred to as the "Commission"), and

(hereinafter collectively referred to as the [illegible]

WITNESSETH THAT:

WHEREAS, the Commission has Government-owned facilities capable of enriching uranium in the isotope 235; and

WHEREAS, the Customer expects to have requirements over an extended period for uranium enriching services; and

WHEREAS, the Commission has authority to provide the enriching services desired by the Customer and is willing to provide such services, all under the terms and conditions more particularly hereinafter set forth; and

WHEREAS, this agreement is authorized by the Atomic Energy Act of 1954, as amended;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

ARTICLE I - DEFINITIONS

As used throughout this agreement, the following terms shall have the meanings set forth below:

1. The term "Act" means the Atomic Energy Act of 1954, as amended.

2. The term "Commission" means the United States Atomic Energy Commission or any duly authorized representative thereof, including the Contracting Officer, except for the purpose of deciding an appeal under the article entitled "Disputes."

3. The term "Commission's established specifications" means the specifications for purity and other physical or chemical properties of special nuclear material and source material (including tails material) as published by the Commission in the Federal Register from time to time applicable to material subject to this agreement on the date of delivery of such material.

4. The term "Commission facility" means a laboratory, plant, office, or other establishment operated by or on behalf of the Commission.

5. The term "Contracting Officer" means the person executing this agreement on behalf of the Government, and includes his successors or any duly authorized representative of any such person.

6. The term "depleted uranium" means uranium depleted in the isotope 235.

7. The term "enriched uranium" means uranium enriched in the isotope 235.

8. The term "enriching services" means the separative work necessary to enrich or further enrich uranium in the isotope 235.

9. The term "established Commission pricing policy" means any applicable price or charge in effect at the time of performance of any services under this agreement (i) published by the Commission in the Federal Register for material or services subject to this agreement, or (ii) in the absence of such a published figure, determined in accordance with the Commission's Pricing Policy; provided, however, that for purposes of this definition, any enriching services performed by the Commission shall be deemed to have been performed on the date of delivery of related enriched uranium to the Customer. A statement of such Pricing Policy will be furnished the Customer upon request. The Commission's published prices or charges, as well as its Pricing Policy, may be amended from time to time.

10. The term "established Commission standard table of enriching services" means the table published from time to time

by the Commission in the Federal Register and in effect at the time of delivery of any enriched uranium to the Customer under this agreement, which table is to be used in connection with the furnishing of enriching services by the Commission to determine the relationship between feed materials, enriched uranium produced therefrom and separative work thereby required to be performed as a function of the quantities and assays of such materials.

11. The term "feed material" means the uranium constituting source material or special nuclear material to be furnished by the Customer to the Commission in connection with the providing of enriching services to the Customer under this agreement; provided, however, it shall not, except as may otherwise be agreed by the Commission and the Customer from time to time, mean uranium having an assay (weight percent U-235) below 0.711 unless such uranium was previously distributed by the Commission or has been derived solely from uranium previously distributed by the Commission.

12. The term "natural uranium" means uranium which has neither been enriched nor depleted in the isotope 235.

13. The term "persons acting on behalf of the Commission" includes employees and contractors of the Commission, and employees of such contractors, who implement or participate in the implementing of this agreement pursuant to their employment or their contracts with the Commission.

14. The term "source material" means (i) uranium, thorium, or any other material which is determined by the Commission pursuant to the provisions of Section 61 of the Act to be source material; or (ii) ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time.

15. The term "special nuclear material" means (i) plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of Section 51 of the Act, determines to be special nuclear material, but does not include source material; or (ii) any material artificially enriched by any of the foregoing, but does not include source material.

16. The term "tails material" means uranium produced as a result of the performance of enriching operations, and with an isotope 235 assay less than 0.711 weight percent U-235 in total uranium.

ARTICLE II - ENRICHING SERVICES - SCHEDULING - SPECIFICATIONS - RESTRICTION ON FURNISHING FEED MATERIAL OF FOREIGN ORIGIN

1. During the term of this agreement, the Commission shall provide to the Customer and the Customer shall obtain from the Commission the Customer's requirements for enriching services for the facilities described in Appendix "A" hereof, all in accordance with the terms and conditions as hereinafter set forth.

2. Unless otherwise agreed by the Commission and the Customer, the maximum amount of enriching services in Kg units of separative work to be furnished by the Commission hereunder shall be 2,456,781 kilograms; provided, however, the Commission shall not be required to furnish a cumulative amount of Kg units of separative work in excess of (i) 201,334 Kgs through the period ending June 30, 1971, an amount agreed to be sufficient to provide the required inventory for the facility specified in Appendix "A" hereof, or (ii) the amount specified in (i) above as cumulatively increased by the additional quantities per year, beginning with July 1, 1972, as set forth in Appendix "A" hereof for the period of this agreement. The foregoing amounts have been derived by applying the established Commission standard table of enriching services in effect as of the date of this agreement to the agreed upon estimated schedule of Customer's requirements for enriched uranium and deliveries of feed material other than natural uranium which is set forth in Appendix "A" hereof, and the foregoing periods of time within which such amounts of separative work are to be furnished. Should the established Commission standard table of enriching services subsequently be changed, then the foregoing amounts of separative work for periods subsequent to such change shall be revised by the Commission to be equal to the amounts of separative work derived from the application of the then current established Commission standard table of enriching services to the relevant portion of the foregoing estimated schedule and the relevant periods of time within which such amounts of separative work are to be furnished. Should the foregoing maximum amount or cumulative amounts of separative work prove, on the basis of experience, to be less than those reasonably required for the facility, and the Commission and the Customer agree upon increased amounts, the ceiling charge per Kg unit of separative work set forth in Section 1 of

Article III hereof shall be applicable to any enriching services provided to the Customer within such increased amounts. Should the foregoing maximum amount or cumulative amounts of separative work exceed those reasonably required for the facility, the Commission and the Customer shall in good faith, upon the request of either party, attempt to reach agreement upon lesser amounts. Failure of the parties to so agree shall be deemed to be a dispute and shall be decided in accordance with the provisions of this agreement entitled, "Disputes." In addition to the description of the designated facility and the estimated schedule of Customer's requirements, Appendix "A" hereof also sets forth the extent to which:

(i) enriched uranium furnished by the Commission under this agreement will, after being used in or in support of the operation of such facility, be recycled or delivered to the Commission as feed material under this agreement;

(ii) plutonium or U-233 produced in and discharged from such facility will be recycled for use in or in support of the operation of such facility;

(iii) special nuclear material obtained through means other than this agreement or the operation of such facility, will be used in or in support of the operation of such facility, including the delivery of such material to the Commission as feed material under this agreement.

The parties recognize that the extent of the actual uses of the materials cited in (i), (ii), and (iii) above may differ from that set forth in Appendix "A" hereof and in the event such changes occur agree that:

(i) If such change has the effect of increasing Customer's requirements in any year or in total, the Commission will in the revision of Appendix "A" pursuant to (iii) below limit its obligations to furnish such increased amount to that portion of such increased amount that the Commission determines it is in a position to undertake to furnish.

(ii) If such change has the effect of decreasing Customer's requirements in any year or in total and the Commission does not agree thereto, the Customer shall request partial or full termination of the agreement as appropriate in accordance with the provisions of Article IX hereof for the purpose of establishing

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such revised basis of requirements; provided, however, to the extent that Appendix "A" hereof does not initially provide for the recycle for use in or in support of such operation of the plutonium or U-233 produced thereby, the Customer, at any time prior to June 30, 1973, or such later date, if any, as the Commission may establish from time to time for general applicability for this type of agreement, may request and the Commission shall agree to the Customer's use of an amount specified by the Customer of (a) plutonium containing no more of the isotopes plutonium-239 and plutonium-241, than the combined amounts of such isotopes that are contained in such produced plutonium or (b) uranium containing no more U-233 and having no greater ratio of U-235 to U-233 than the U-233 so produced (including its precursor protactinium-233) together with other uranium associated therewith at the time such uranium is discharged from the facility designated in such Appendix.

(iii) Any such change, by agreement or by partial termination, shall be reflected in an appropriate revision of Appendix "A" hereof and the foregoing maximum and cumulative amounts of separative work in enriching services required to be furnished by the Commission under this agreement. Failure of the parties acting in good faith to agree upon an appropriate revision reflecting such change shall be deemed to be a dispute and shall be decided in accordance with the provisions of this agreement entitled, "Disputes."

3. By January 1, 1971, and on or before January 1 of each succeeding year, the Customer shall provide the Commission with a written schedule of (i) its estimated annual requirements for enriched uranium for use in the aforementioned facility for the subsequent five-year period, (ii) its estimated monthly requirements for enriched uranium for use in the aforementioned facility for the subsequent two-year period, and (iii) proposed deliveries of feed material to the Commission in accordance with this Section 3 of this article during such periods. Such schedules shall have as their sole purpose facilitating deliveries hereunder and shall not be binding ✓ on either the Commission or the Customer. The parties shall agree from time to time on firm delivery dates for the specific quantities (Kg U) and assays (weight percent U-235) of enriched uranium required by the Customer and feed material to be delivered to the Commission; provided, however, that in no event shall the maximum assay of enriched uranium to be delivered by the Commission exceed the maximum assay indicated to be so available in the established

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Commission standard table of enriching services; nor shall the minimum assay of feed material to be delivered by the Customer be less than the minimum assay indicated in such table; and, provided further that in no event shall the Customer be required to agree on any such firm delivery date more than 180 days in advance. The Customer shall furnish to the Commission feed material in such quantities and assays as are required, in accordance with the established Commission standard table of enriching services, to obtain the material of higher U-235 assay required by the Customer for the operation of the facility specified in Appendix "A" hereof. Unless otherwise agreed, deliveries of feed material to the Commission shall precede requested deliveries of special nuclear material to the Customer, pursuant to Section 2 above, by ninety (90) days.

4. It is recognized that deliveries of enriched uranium to the Customer under Section 2 or of feed material to the Commission under Section 3 above may vary slightly from the quantity or assay intended to be delivered. It is agreed that variations in (i) quantities of material delivered of not greater than 0.50% in case of material of not more than 5% assay (weight percent U-235) and not greater than 0.25% in case of material of greater than 5% assay (weight percent U-235); and (ii) assay within the variations permitted by the Commission's established specifications shall be acceptable; provided, however, that in the event the quantity of feed material actually furnished and acceptable hereunder is less than that required under the established Commission standard table of enriching services to obtain the quantity and assay of enriched uranium actually delivered to the Customer, even though within the foregoing permissible variations, the Customer shall pay the Commission for the additional feed material required at the prices set forth in the established Commission pricing policy; and provided, further, that in the event the quantity of feed material actually furnished and acceptable hereunder is greater than that required, under the established Commission standard table of enriching services, to obtain the quantity and assay of enriched uranium actually delivered to the Customer, such excess feed material shall, at the election of the Customer, either be retained by the Commission and applied against future deliveries of feed material or delivered to the Customer at the Customer's expense, and the excess feed material shall not be taken into consideration in determining the amount to be paid to the Commission. Feed material furnished in excess of the amounts acceptable hereunder shall, unless otherwise agreed, be delivered to the Customer at the Customer's expense.

Any change in such established Commission standard table shall require at least 180 days' prior notice to the Customer by publication in the Federal Register or otherwise.

5. All feed material to be furnished to the Commission and all enriched uranium to be delivered to the Customer hereunder shall be in the form of UF6 and conform to the Commission's established specifications for such material. Any changes in such specifications shall require at least 180 days' prior notice to the Customer by publication in the Federal Register or otherwise. Determinations of the quantities and properties of all such material delivered by or to the Commission shall be made in accordance with the provisions of this agreement. Upon final determination that any such material is not of the assay required by this agreement or does not conform to the Commission's established specifications for such material, the supplier of such material shall thereupon promptly elect either to (a) remove the rejected material, or (b) provide the receiver with instructions for its disposition. Any such removal or other disposition in accordance with (a) or (b) of the preceding sentence shall be at the expense of the supplier, and the supplier shall reimburse the receiver for the reasonable cost of disposing of such material. Where the receiver is the Commission, such reasonable cost shall be determined in accordance with the established Commission pricing policy.

6. Except as may be otherwise authorized by the provisions of the Federal Register Notice entitled, "Uranium Enrichment Services Criteria," 31 Fed. Reg. 16479, December 23, 1966, as the same may be amended from time to time, feed material of foreign origin shall not be furnished by the Customer hereunder if the enriched uranium to be obtained from the Commission hereunder is intended for use in a utilization facility, as defined in the Act, within or under the jurisdiction of the United States.

ARTICLE III - CHARGES FOR ENRICHING SERVICES - CEILING CHARGE - OTHER CHARGES

1. The charges to be paid to the Commission for enriching services provided to the Customer hereunder shall be determined in accordance with the established Commission pricing policy for such services; provided, however, that the unit charge for enriching services during the term of this agreement shall in no event exceed a ceiling charge of $30.00 (subject to possible adjustment pursuant to Section 3 of this article) per Kg unit of separative work for

separation of U-235 from U-238, as defined in the established Commission pricing policy.

2. It is recognized that the Commission may, from time to time during the term of this agreement, either increase or decrease its unit charge for enriching services. Any increase in such charge shall require at least 180 days' notice to the Customer, by publication in the Federal Register or otherwise.

3. With the view of arriving at an equitable adjustment of the ceiling charge provided for in Section 1 above in case the costs of labor and/or electric power utilized in the performance of enriching services should, subsequent to June 30, 1965, vary upward or downward, said charge shall be subject to adjustment in the event of increases or decreases in costs of labor and/or electric power in accordance with the following method:

A. Labor. For the purpose of this adjustment the portion of the ceiling charge representing labor is accepted as $5.00. This amount accepted as representing labor shall be adjusted on the basis of the monthly reports of average hourly earnings of production workers in the Manufacturing Industries, Non-Durable-Goods Industries Division, Chemical and Allied Products Subdivision, compiled and published by the U. S. Department of Labor in the Monthly Labor Review of the Bureau of Labor Statistics. An arithmetical average of the monthly report figures for each six months' period after June 30, 1965, shall be computed, and the percentage increase, if any, will be obtained by comparison of such average with the published average hourly earnings figure of $2.87 for the base month of June 1965. The adjustment, if any, in labor costs will be obtained by applying such percentage to the amount accepted as representing labor above.

B. Electric Power. For the purpose of this adjustment the portion of the ceiling charge representing power is accepted as $15.00. This amount accepted as representing power shall be adjusted on the basis of the average cost per kilowatt hour of power used in all of the Commission's gaseous diffusion plants. The Commission shall determine the average cost of power for each six months' period after June 30, 1965, and the percentage increase, if any, will be obtained by comparison of such average with the Commission's average cost per kilowatt hour of power for the base six months' period commencing on

January 1, 1965, and ending on June 30, 1965. The adjustment, if any, in power costs will be obtained by applying such percentage to the amount accepted as representing power above.

C. General. In no event shall the ceiling charge be less than $30.00 per Kg unit of separative work for separation of U-235 from U-238, as defined in the established Commission pricing policy. If for any reason the statistics published by the U. S. Department of Labor, referred to above, are not available, adjustment for labor costs will be made by using a similar report or index selected by the Commission.

4. In addition to the charges to be paid for enriching services, the Customer shall pay the Commission's service charges, if any, for withdrawal, handling and packaging of enriched uranium, for storage of feed material to be applied against future deliveries of feed material, and for any other special service rendered, at the Customer's request in connection with providing enriching services hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall also pay such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE IV - COMMISSION FACILITY PROVIDING ENRICHING SERVICES - POINT OF DELIVERY FOR FEED MATERIAL

All materials delivered or returned to the Customer shall be furnished by, and feed material furnished to the Commission shall be delivered to, the Commission facility or facilities specified by the Commission from time to time by written notice to the Customer at least ninety (90) days in advance of the relevant delivery dates agreed upon pursuant to Section 3 of Article II for delivery of such materials. Enriching services may be performed in whole or in part at the same or other facilities.

ARTICLE V - WARRANTY OF FEED MATERIAL FURNISHED BY CUSTOMER - INDEMNITY

The Customer warrants that all feed material furnished to the Commission hereunder is of the assay required by this agreement and conforms to the Commission's established specifications for such material. Notwithstanding the provisions of the article hereof entitled, "Force Majeure," the Customer shall hold and save the Government, the Commission, and persons acting on behalf of the

Commission harmless from any and all damages, liabilities and costs arising out of or in connection with a breach of this warranty; provided, however, that the Customer shall not be responsible for any damage, liability or cost (1) which would have been incurred even if the Customer had not breached this warranty, or (2) which is incurred subsequent to final acceptance of such feed material by the Commission. The Customer shall in no event be liable for indirect or consequential damages and nothing contained herein shall deprive the Customer of any rights under indemnification agreements entered into pursuant to Section 170 of the Act.

ARTICLE VI - CUSTOMER'S OPTION TO ACQUIRE TAILS MATERIAL

1. It is recognized that the performance of enriching services such as those provided hereunder results in the generation of tails material. The Customer shall have an option, exercisable upon written notice to the Commission at the time of delivery of the related quantity of feed material, to acquire tails material from the Commission (but not necessarily tails material resulting from feed material furnished by the Customer) in accordance with the terms and conditions as hereinafter set forth. Tails material subject to the Customer's option but not taken shall remain the property of the Government.

2. In the event the Customer elects to exercise its option to acquire tails material from the Commission, the written notice so advising shall specify the quantities (Kg U) of tails material desired. The maximum quantity of tails material to be subject to the Customer's option shall be equal to the difference between the total quantity of uranium supplied by the Customer as feed material and the total quantity of enriched uranium furnished to the Customer; provided, however, that the maximum quantity so calculated shall be reduced to the extent of processing losses as determined by the Commission. The U-235 assay of tails material delivered to the Customer shall be within the sole discretion of the Commission.

3. Unless otherwise agreed, delivery of tails material shall be at the same time as delivery of related enriched uranium to the Customer.

4. All tails material delivered to the Customer hereunder shall be in the form of UF_6 and shall conform to the Commission's established specifications for such material. The quantities and properties of tails material shall be determined in accordance with the provisions of this agreement.

5. It is recognized that deliveries of tails material to the Customer may vary slightly from the quantity intended to be delivered. It is agreed that variations in quantities of tails material delivered of not greater than 0.50% shall be acceptable.

6. Except as provided in Section 7, no charge will be made in connection with furnishing tails material to the Customer. The Customer shall receive no credit for tails material subject to its option but not taken.

7. The Customer shall pay the Commission's service charges, if any, for withdrawal, handling and packaging, and for any other special service rendered, at the Customer's request, in connection with furnishing tails material hereunder, as determined in accordance with the established Commission pricing policy. The Customer shall pay all such rental charges on any AEC-owned containers and equipment furnished hereunder as may be provided elsewhere in this agreement.

ARTICLE VII - TERM OF AGREEMENT

The term of this agreement shall commence as of the date of execution thereof and continue for a period of thirty (30) years from such date, unless sooner terminated in accordance with the agreement terms.

ARTICLE VIII - PAYMENT

1. The Customer shall pay to the Commission the charges stated in Article III hereof for enriching services furnished to the Customer hereunder. All such payments shall be made within thirty (30) days from the date of the Commission's invoice. The Commission shall ordinarily submit an invoice promptly after each shipment of enriched uranium to the Customer. Checks shall be payable to the United States Atomic Energy Commission and, unless otherwise directed by the Commission, shall be mailed to the Director, Finance Division, United States Atomic Energy Commission, P. O. Box E, Oak Ridge, Tennessee 37830. In the event of disagreement as to the quantities or properties of uranium delivered by or to the Customer, provisional payments shall be made on the basis of the Commission's figures, and appropriate adjustments in amounts paid made promptly upon resolution of such disagreements in accordance with the provisions of this agreement.

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2. Any other amounts due the Commission under this agreement shall be paid within thirty (30) days after date of invoice therefor in accordance with instructions furnished with such invoice.

3. The Customer shall pay interest at the per annum rate (365-day basis) established from time to time by the Commission for general application to monies due the Commission on all amounts not received by the Commission within thirty (30) days from the date of invoice, such interest to commence on the thirty-first (31st) day from date of invoice.

ARTICLE IX - TERMINATION - SUSPENSION

1. In addition to any other rights the Commission may have, the Commission reserves [illegible] right, at no cost to the Government, to terminate or suspend this agreement, by written notice to the Customer, in the event (i) the right of the Customer or of the owner of the facility specified in Appendix "A" hereof to possess enriched uranium to be delivered to the Customer hereunder expires or is suspended or terminated by any authority having power to take such action; (ii) the Customer shall fail to perform its obligations hereunder, and shall fail to take corrective action within thirty (30) days of the date of the written notice of such failure to perform as provided above, unless such failure arises out of causes beyond the control and without the fault or negligence of the Customer or its contractors or agents; or (iii) if bankruptcy or insolvency proceedings are commenced by or against the Customer or the owner of such facility, or if receivers are appointed to take possession of the business of the Customer or the business of the owner of such facility. The Commission may also terminate this agreement at no cost to the Government, upon reasonable written notice to the Customer, at such time as commercial enriching services are provided by another domestic source; provided, however, that the Commission will, upon request, prior to the effective date of such termination, rescind the notice of termination and will continue performance of this agreement if the services of the domestic source are not available to the Customer: (1) to the extent provided for in this agreement during the remainder of its term; (2) on terms and conditions which are considered by the Commission to be reasonable and nondiscriminatory as between domestic and foreign customers, and (3) at charges considered by the Commission to be reasonable, nondiscriminatory and in no event higher than the ceiling charge provided for in this agreement, as such ceiling charge may be increased pursuant to the provisions of this agreement.

2. This agreement may be terminated either in whole or in part by the Customer at any time by delivery to the Commission of a written notice of termination stating the date after receipt of the notice upon which such termination shall become effective.

3. Upon termination of this agreement by the Commission pursuant to (i), (ii), or (iii) of Section 1 of this article or by the Customer pursuant to Section 2 of this article, the Customer shall pay to the Commission a termination charge for each unit of separative work which, but for such termination, would have been furnished under this agreement. Such termination charge shall be equal to a fraction established herein of the then current charge per kilogram unit of separative work. The then current charge per kilogram unit of separative work shall be determined in accordance with the provisions of Article [illegible] hereof that would have been applied to enriching services furnished on the date of the receipt of the notice of termination. The fractions to be applied in determining the termination charge are set forth below as a function of the time period between the date of receipt of the notice of termination and the date when the separative work unit subject to the termination charge would have been furnished under the agreement.

Time Period	Fraction of Effective Charge Per Kg Unit of Separative Work
Less than 1 year	0.25
1 year or more but less than 2 years	0.20
2 years or more but less than 3 years	0.15
3 years or more but less than 3-1/2 years	0.10
3-1/2 years or more	0

The amount of enriching services which, but for such termination, would have been furnished under this agreement shall be determined in accordance with the established Commission standard table of enriching services that would have been applied to enriching services furnished on the date of the receipt of the notice of such termination. Notwithstanding the foregoing provisions of this section, the Contracting Officer shall determine the extent to which, if any, such termination charges exceed the probable costs to the Commission which may arise from such termination and such charges shall be correspondingly reduced. Such determination shall be final. Upon request of the Customer prior to its delivery of a notice of termination, the Commission will advise the Customer of the approximate amount of termination charges which would become payable by the Customer hereunder in the event of termination by the Customer.

4. Unless otherwise agreed, upon termination of this agreement, feed material delivered by the Customer for the performance of the enriching services so terminated or, to the extent such feed material is unavailable to the Commission, uranium equal in value to such feed material as determined by the Commission in accordance with the established Commission pricing policy shall be returned to the Customer.

ARTICLE X - AMENDMENTS

The provisions of this agreement have been developed in the light of the uncertainties necessarily attendant to an agreement which may be for a period as great as thirty (30) years. Accordingly, at the request of either the Commission or the Customer, the parties will negotiate and, to the extent mutually agreed, amend this agreement without additional consideration to eliminate or reduce restrictive provisions which the parties determine are inequitable, discriminatory or no longer required to protect their interests; provided, however, any such amendment shall be consistent with the provisions of the Federal Register Notice entitled, "Uranium Enrichment Services Criteria," 31 Fed. Reg. 16479, December 23, 1966, as the same may be amended from time to time.

ARTICLE XI - NOTICES

All notices and communications pursuant to this agreement from either party to the other (except notices published in the Federal Register) shall be in writing and shall be sent to the following addressees:

To the Commission: Mr. C. A. Keller, Director
Production Division
United States Atomic Energy Commission
Post Office Box E
Oak Ridge, Tennessee 37830

To the Customer:

Either party may, by notice given as aforesaid, change its address for notices and communications to be given thereafter.

ARTICLE XII - GENERAL TERMS AND CONDITIONS - CONFLICTS

1. The general Terms and Conditions attached hereto are hereby made a part of this agreement.

2. In the event of any conflict between the articles of this agreement and the attached General Terms and Conditions, the former shall govern.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

UNITED STATES OF AMERICA
BY: UNITED STATES ATOMIC ENERGY COMMISSION

BY: ______________________________
Contracting Officer

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GENERAL TERMS AND CONDITIONS

(Agreement for Furnishing Uranium Enrichment Services)

1. **Officials Not to Benefit.** No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

2. **Covenant Against Contingent Fees.** The Customer warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Customer for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this agreement without liability or in its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

3. **Force Majeure.** Neither the Government nor the Customer shall be liable under this agreement for damages occasioned by failure to perform its obligations hereunder if such failure arises out of causes beyond the control and without the fault or negligence of the party so failing to perform or its contractors or agents.

4. **Limitation on Commission's Liability.** The Commission's obligation to deliver both enriched uranium and tails material of the assay required by this agreement and conforming to the Commission's established specifications shall be deemed to have been satisfied (except as to claims arising out of unexcused delays in delivery) upon final acceptance of such material by the Customer.

5. **Disclaimer.** Neither the Government, the Commission, nor persons acting on behalf of the Commission warrant that materials delivered to the Customer under this agreement (i) will not result in injury or damage when used for any purpose, or (ii) are of merchantable quality, or (iii) are fit for any particular purpose.

6. **Patent Indemnification.** The Customer agrees to indemnify the Government, the Commission, and persons acting on behalf of the Commission against liability, including costs and expenses incurred, for infringement of any Letters Patent occurring in the performance of any service, analysis, or test performed for the Customer as a result of following specific instructions of the Customer in connection therewith, or occurring in the utilization by the Customer of any material procured hereunder; provided, that

such materials are used or services utilized in the performance of a Government contract, this indemnity agreement shall not apply unless such Government contract contains provisions indemnifying the Government against patent infringement.

7. Disputes.

a. Except as otherwise provided in this agreement, any dispute concerning a question of fact arising under this agreement which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Customer. The decision of the Contracting Officer shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Customer mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Commission. The decision of the Commission or its duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this article, the Customer shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Customer shall proceed diligently with the performance of the agreement and in accordance with the Contracting Officer's decision.

b. This "Disputes" clause does not preclude consideration of law questions in connection with decisions provided for in Section a, above; provided, that nothing in this agreement shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

8. Assignment. Neither this agreement nor any interest therein nor claim thereunder shall be assigned or transferred by the Customer except as expressly authorized in writing by the Contracting Officer.

9. Delivery—Title.

a. All material delivered or returned to the Customer hereunder shall be delivered to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at the Commission facility from which such material is to be furnished. Title to such material shall pass to the Customer upon delivery at such point.

b. All material delivered or returned to the Commission hereunder shall be delivered to the Commission, f.o.b. Customer's vehicle or commercial conveyance, at the Commission facility to be designated by the Commission. The Customer, at the time of shipment of material, shall notify the Commission of the date and method of shipment, and expected date of arrival. Title to such material shall pass to the Government upon delivery at such point, provided that title to any rejected material removed by the Commission pursuant to Section 5 of Article II hereof shall pass to the Government upon such removal.

10. Fulfillment of Obligations Through Operator. The Customer understands and agrees that the Commission may fulfill its obligations under this agreement through the operator of any of its facilities. No such operator is authorized to modify the terms of this agreement, waive any requirement thereof, or settle any claim or dispute arising hereunder.

11. Permits—Laws, Regulations and Ordinances. The Customer shall procure all necessary permits or licenses (including any special nuclear material licenses) and comply with all applicable laws, regulations, and ordinances of the United States and of any State, territory or political subdivision.

12. Containers and Equipment.

a. All shipments of material from the Commission to the Customer, and from the Customer to the Commission, will be made in Customer-furnished containers; provided, however, that in the event the Commission determines that the required containers are not reasonably available from commercial sources, the Commission may furnish such containers. Any AEC-owned containers to be used for shipment of material to the Commission will be made available to the Customer, f.o.b. Customer's vehicle or commercial conveyance, at a Commission facility designated by the Commission, unless otherwise agreed. Customer-furnished containers and equipment shall be delivered to a Commission facility designated by the Commission within a reasonable time specified by the Commission prior to the scheduled delivery of materials to be shipped to the Customer in such containers and equipment. Customer-furnished containers or equipment will be used by the Commission only for the shipment of material from the Commission to the Customer and for temporary storage of material shipped therein.

b. All containers and equipment, whether AEC-owned or Customer-furnished, must meet Commission regulations, specifications and practices as to safety, design criteria, cleanliness and freedom from contamination in effect at the time furnished, utilized or returned, of which the Commission shall be the sole judge. In the event feed material is furnished to the Commission in non-AEC-owned containers and tails material is to be delivered to the Customer, the Commission shall utilize to the extent practicable such non-AEC-owned containers for shipments of tails material if so desired by the Customer. The Commission will promptly return non-AEC-owned containers and other equipment identified as "Returnable" to the Customer, but will not be responsible for any loss of or damage to such containers or equipment except as may result from the fault or negligence of the Commission, its contractors, or agents. Such return shipments by the Commission will be made f.o.b. Customer's vehicle or commercial conveyance at the Commission facility to which they were shipped.

c. Title to AEC-owned containers and equipment shall remain in the Government. Customer shall pay such rental charge, for such containers and equipment as shall be established by the Commission for general application to users of such AEC-owned property. The Customer will promptly return AEC-owned containers and equipment to the Commission facility from which received, f.o.b. Customer's vehicle or commercial conveyance at the Commission facility. Customer will not be responsible for any loss of or damage to AEC-owned containers or equipment except as may result from the fault or negligence of the Customer, its contractors, or agents. AEC-owned containers or equipment will be used only for shipment of material to and from the Commission and for temporary storage of material shipped therein.

d. Whenever material or containers are shipped to the Commission or AEC-owned containers are returned to the Commission, and the Commission elects to decontaminate the containers, railroad cars, trucks or other shipping vehicles or the Commission's unloading area and machinery, because the containers, or the material or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies having jurisdiction over such matters, the Customer shall pay the Commission the full cost of such decontamination as determined by the Commission in accordance with established Commission pricing policy.

e. Whenever material or containers are shipped by the Commission and the Customer elects to decontaminate the containers, railroad cars, trucks, or other shipping vehicles or the Customer's unloading area and machinery, because the containers, or the material, or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies of the United States having jurisdiction over such matters, the Commission shall, if such failure results from the fault or negligence of the Commission, its contractors, or agents, pay the Customer for the reasonable cost of such decontamination as determined by the Commission.

13. Determination of Material Quantities and Properties—Resolution of Measurement Differences. The following provisions and procedures shall apply to the determination of quantities and properties of material, and the resolution of measurement differences resulting from such determination, with respect to special nuclear material and tails material delivered to the Customer and with respect to feed material furnished by the Customer to the Commission. For the purposes of this clause, the terms "supplier" and "receiver" shall refer to the Commission and the Customer as the case may be. The supplier will promptly furnish the receiver a statement of the quantities and properties of the material transferred including a statement of the gross weight of the container plus material and the tare weight of such container.

a. The Commission samples obtained at a Commission facility using the Commission's procedures will be the official samples and shall be binding upon the Commission, the Customer and the umpire unless the Commission and the Customer agree upon the use of other samples, procedures or sampling locations.

b. The following provisions and procedures apply to the determination of the net weight of material transferred as determined by the gross weight of the container plus material less the tare weight of such container. The net weight of material transferred shall be determined prior to delivery to the Customer or acceptance of delivery by the Commission, as the case may be, at a Commission facility using the Commission's procedures and facilities unless the Commission and the Customer agree upon other procedures or facilities. Upon written request submitted at least 30 days prior to the scheduled delivery of material, the Customer shall be given an opportunity to observe, at the Customer's expense, the weighing of the container and the container plus material and the taking of official samples by the Commission. The Commission shall notify the Customer of the dates and places for observance of such events. The net weight of material transferred shall be as determined by the results of such weighings and shall not be subject to the provisions of subsections c and d below.

c. If, after determination pursuant to subsection b above of the net weight of the material transferred, the receiver does not accept the supplier's statement of the other quantities and properties of the material transferred, the receiver shall within thirty (30) days after the receipt of the material or the supplier's statement of quantities and properties, whichever is later, submit a notice of disagreement in writing to the supplier. The notice of disagreement shall include measurement and/or analysis data supporting the disagreement. If such notice of disagreement is not submitted within such thirty (30) days, the supplier's measurements will be final and binding upon both parties. If the disagreement is solely with respect to quantitative determinations within specification limits, the receiver may use or dispose of the material in accordance with applicable State and Federal regulations prior to resolution of the disagreement. If the disagreement is with respect to whether the material is within specification limits, the receiver may handle the material as necessary for storage or protection against health and safety hazards; provided, however, should the receiver further use or dispose of the material, the supplier's measurements will be final and binding on both parties.

d. In the case of a disagreement concerning results obtained from analysis of a sample which is not resolved by mutual agreement, an official sample shall be submitted to an umpire mutually agreed upon for analysis. The umpire's results shall be conclusive on both parties.

(i) In the case of a disagreement with respect to whether or not the material is within specification limits, the receiver will pay the umpire cost if the umpire's result is within specification limits, and the supplier will pay the umpire cost if the umpire's result is not within specification limits.

(ii) In the case of a disagreement with respect to quantitative determinations within specification limits, the party whose result is furthest from the umpire's result will pay the umpire cost; provided that in the event the umpire's result is equidistant between the supplier's and the receiver's results, the parties will each bear one-half of the umpire cost.

(iii) As used in this subsection d, the phrase, "umpire cost," means the umpire's charges, plus the additional cost, if any, of the packaging, handling, and transporting of the official sample to and from the umpire. In the event that the umpire is to employ an official sample for more than one determination, the foregoing umpire costs shall be allocated to such determinations as mutually agreed by the parties prior to the furnishing of the sample to the umpire, or in the absence of such agreement, as determined by the umpire.

A 1464

3-4-77

Prepared By	Initials	Date
Approved By		

Surcharge Computation
200 MW Reduction In Cascade Power

	Cost	SW Production	SW Unit Cost
With 200 MW Power Reduction	$		
ORGDP	6181[illegible]10	221777	
Paducah	7[illegible]0224	417587	
GAT	5942690	181670	
AEC	828305		
Consolidated	20912529	821034	$ 25.4710
Without 200 MW Power Reduction			
ORGDP	7049708	256267	
Paducah	8139380	478168	
GAT	6268884	212833	
AEC	828305		
	22286277	947268	$ 23.5269
Increased Unit Cost at Reduced Power			$ 1.9441
SW Produced at reduced Power			821034
Increased total Cost of Production			$ 1596172
Total MWH Released			317342
Surcharge Rate ($ Per MWH)			$ 5.03

A 1465

Prepared By
Approved By

Separative Work Production
With 200 MW Power Reductions
0200 Hrs 7-27-70 / 0600 Hrs 10-1-70

	Hours	Area Average MW Level	Days	Separative Capacity KgSU/day		Separative Work Performed
ORGDP		418				
July 27	0200-0300	413	1/24	3480		145
	0300-0400	403	"	3380		141
	0400-0500	393	"	3269		136
	0500-0600	383	"	3154		131
	0600-0700	373	"	3039		127
	0700-2400	368	17/24	2982		2112
July 28-31		368	4	2982		11928
						14720
Aug. 1-31		372			Actual	96766
Sept. 1-30		421			Actual	109497
Oct. 1	0001-0100	426	1/24	3610		150
	0100-0200	436	"	3710		155
	0200-0300	446	"	3810		159
	0300-0400	456	"	3910		163
	0400-0500	466	"	4010		167
						794
Total ORGDP						221777

4507 Buff
8507 Green

A 1466

	Initials	Date
Prepared By		
Approved By		

Separative Work Production
With 200 MW Power Reduction
2100 Hrs. 7-26-70 / 1100 Hrs. 10-1-70

1	2 Hours	3 Area Average MW Level	4 Days	5 Separative Capacity KgSU/day	6	7 Separative Work Performed
Paducah		683				
July 26	2100-2200	678	1/24	5941		247
	2200-2300	668	"	5846		244
	2300-2400	658	"	5751		240
July 27	0001-0100	648	"	5656		236
	0100-0200	638	"	5561		232
	0200-0300	628	"	5466		228
	0300-0400	618	"	5371		224
	0400-0500	608	"	5276		220
	0500-0600	598	"	5181		216
	0600-0700	558	"	5086		212
	0700-2400	583	17/24	5038		3568
July 28-31		583	4	5038		20152
Total July						26019
August 1-31		594	31		Actual	160140
Sept. 1-30		886	30		Actual	227600
Oct. 1	0001-0100	891	1/24	7917		330
	0100-0200	901	"	8005		334
	0200-0300	911	"	8093		337
	0300-0400	921	"	8180		341
	0400-0500	931	"	8267		344
	0500-0600	941	"	8355		348
	0600-0700	951	"	8443		352
	0700-0800	961	"	8531		355
	0800-0900	971	"	8618		359
	0900-1000	981	"	8706		363
	1000-1100	986	"	8750		365
						3828
Total Paducah						417557

A 1467

Prepared By
Approved By

Seperative Work Reduction
With 200 MW Power Reduction (for Complex)
1900 Hrs 7-26-70/0800 Hrs 10-1-70

1	2	3	4	5	6	7
	Hours	Area Average Power Level	Days	Separative Capacity Kgs U/day		Separative Work Performed
Portsmouth		393				
July 26	1900-2000	389	1/24	3117		130
	2000-2100	385	"	3079		128
	2100-2200	381	"	3041		127
	2200-2300	378	"	3013		126
	2300-2400	374	"	2976		124
July 27	0001-0100	370	"	2938		122
	0100-0200	366	"	2900		121
	0200-0300	362	"	2863		119
	0300-0400	358	"	2825		118
	0400-0500	354	"	2788		116
	0500-0600	350	"	2750		115
	0600-0700	346	"	2706		113
	0700-0800	343	"	2673		111
	0800-2400	343	16/24	2673		1782
July 28-31		343	4	2673		10692
						14044
Aug. 1-31		350	31		Actual	91034
Sept. 1-30		352	30		Actual	75083
Oct. 1	0001-0100	356	1/24	2806		117
	0100-0200	360	"	2844		118
	0200-0300	364	"	2882		120
	0300-0400	368	"	2919		122
	0400-0500	372	"	2957		123
	0500-0600	376	"	2994		125
	0600-0700	381	"	3041		127
	0700-0800	384	"	3070		128
	0800-0900	389	"	3117		130
	0900-1000	393	"	3154		131
	1000-1100	397	"	3192		133
	1100-1200	402	"	3237		135
						1509
Total Portsmouth						151670

A 1468

Prepared By
Approved By

Separative Work Production
Without 200 MW Power Reduction
0200 Hrs. 7-27-70 / 0600 Hrs. 10-1-70

1	Hours	Area Average MW Level	Days	Separative Capacity Kgs U/day	6	Separative Work Produced
ORGDP						
July 27	0200-2400	418	22/24	3530		3236
28-31		418	4	3530		14120
						17356
Aug. 1-31		372	31		Actual	96766
		50	31	542		16802
						113568
Sept. 1-30		421	30		Actual	109497
		50	30	500		15000
						124497
October 1	0001-0500	471	5/24	4060		846
Total ORGDP						256267

A 1469

	Initials	Date
Prepared By		
Approved By		

Separative Work Production
Without 200 MW Power Reduction
2100 Hrs. 7-26-70 / 1100 Hrs. 10-1-70

1	2 Hours	3 Area Average MW Level	4 Days	5 Separative Capacity Kgs U/day	6	7 Separative Work Performed
Paducah						
July 26	2100-2400	683	3/24	5988		748
27-31		683	5	5988		29940
						30688
August 1-31		594	31		Actual	160140
		100	31	950		29450
						189590
Sept. 1-30		886	30		Actual	227600
		100	30	876		26280
						253880
Oct. 1	0001-1100	986	11/24	8750		4010
Total Paducah						478168

A 1470

	Initials	Date
Prepared By		
Approved By		

Separative Work Production
Without 200 MW Power Reduction (for Complex)
1700 Hrs 7-26-70 / 0800 Hrs 10-1-70

1	2 Hours	3 Area Average mw Level	4 Days	5 Separative Capacity KaSU/day	6	7 Separative Work Performed
Portsmouth						
July 26	1900-2400	393	5/24	3154		657
27-31		393	5	3154		15770
						16427
Aug. 1-31		350	31		Actual	91034
		50	31	470		14570
						105604
Sept. 1-30		352	30		Actual	75083
		50	30	470		14100
						89183
Oct. 1	0001-1200	402	12/24	3239		1619
Total Portsmouth						212833

A 1471

Prepared By	Initial	Date
Approved By		

Mwhs of Power Released
to Con. Ed.
July – Oct 1970

Pg 1

	Hours	Average MW Inj	Hours Dipped	MW Hours
July				
ORGDP 7-27	0200-0300	5	1	5
	0300-0400	15		15
	0400-0500	25		25
	0500-0600	35		35
	0600-0700	45		45
	0700-2400	50	17 hrs	850
7-28/7-31		50	96	4800
				5775
Paducah 7-26	2100-2200	5	1	5
	2200-2300	15		15
	2300-2400	25		25
7-27	0001-0100	35		35
	0100-0200	45		45
	0200-0300	55		55
	0300-0400	65		65
	0400-0500	75		75
	0500-0600	85		85
	0600-0700	95		95
	0700-2400	100	17 hrs	1700
7-28/7-31			96 hrs	9600
				11800
Portsmouth				
7-26	1900-2000	4		4
	2000-2100	8		8
	2100-2200	12		12
	2200-2300	15		15
	2300-2400	19		19
7-27	0001-0100	22		22
	0100-0200	26		26
	0200-0300	30		30
	0300-0400	34		34
	0400-0500	38		38
	0500-0600	42		42
	0600-0700	46		46
	0700-0800	50		50
	0800-2400	50	16 hrs	800
7-28/7-31		50	96	4800
				5946

A 1472

	Initials	Date
Prepared By		
Approved By		

Surcharge Computation
Added Factor Costs
7-26-70 / 10-1-70

			July 1970	Hourly Rate for July 1970 (744 hrs)	July Hours of Usage
Operating Expense					
ORGDP					
Process Development	①	(02-50-05)	552470	742.56	11[illegible]
Shutdown and Standby	②	(02-30-10-02)	11428	15.36	
Misc Warehousing	③	(02-30-10-01)	9336	12.55	
Misc - AECOP	④	(02-30-20-05)	12360	16.61	
Misc - other	⑤	(02-30-20-09)	1696	2.28	
Withdrawals Anal & Fab.	⑥	(43-02-06)	7024	9.44	
			594314		
Paducah					
Process Development	①	(02-50-05)	42862	57.61	123
Shutdown and Standby	②	(02-30-10-02)	2[illegible]48	3.83	
Misc. Warehousing	③	(02-30-20-01)	15828	21.27	
Withdrawals Anal & Fab.	⑥	(43-02-06)	-0-	–	
			61539		
Portsmouth					
Process Development	①	(02-50-05)	15[illegible]24	205.01	125
Shutdown and Standby	②	(02-30-10-02)	3[illegible]	4.57	
Misc. Warehousing	③	(02-30-20-01)	495	.67	
Misc - Others	⑤	(02-30-20-09)		–	
Withdrawals Anal. & Fab.	⑥	(43-02-06)	13[illegible]	18.61	
			170365		
Total all PLANTS			826118		

① U-235 Process Development only (Centrifuge process development excluded)
② 29% of total shutdown [illegible] standby, based on UEA FY1971 allocations.
③ 52% of total misc [illegible]ing, " " " "
④ 27% of total [illegible], " " " " "
⑤ 26% of total [illegible], " " " "
⑥ withdrawal, analysis [illegible] fabrication – 100% UEA.

Sources: Cost-Budget Report for basic cost data.
FY1971 UEA W/P for UEA/non-UEA ratios.

A 1473

8	9	10	11	12	13	14
July Cost	August	Sept	October	Hourly Rate for Oct. (744 hrs)	Oct Hours of Duty	Oct Cost
87622	577611	566917	515253	676.57	6	4179.76
1812	10609	13435	12241	16.45		98.70
1451	6702	< 1688 >	1005	1.35		8.11
1960	11309	11885	9102	12.23		73.38
269	2429	6475	5155	6.93		41.58
1114	2765	1571	2741	3.65		22.08
94228	611445	598603	548497			4423.31
7084	36544	31845	28755	38.65	11	425.15
471	2849	3002	2350	3.16		34.76
2616	15657	25020	24797	33.33		366.63
—	-0-	-0-	-0-	—		—
10173	55050	59867	55904			826.54
25626	139154	126248	130183	174.98	12	2099.76
571	3575	2733	6333	8.51		102.12
83	654	352	349	.47		5.64
—	16	16	-0-	—		—
2326	2024	3860	5336	7.17		86.04
28606	145423	133279	142201			2293.56
133037	811918	791749	746602			7543.41

	Initials	Date
Prepared By		
Approved By		

A 1474

Surcharge Computations
AEC Operating Expense (Added Factor Costs)
1970

1	2	3	4	5	6	7
				July		
				Total Actual Costs	Hourly Rate	Hours of Dump
Operating Expense						
AEC						
AEC Administration (Prog. 18)						
		ORO ①		236567	31797	118
		Hdq. ②				
Community Assistance ③						
Security Investigation ④						
Product Costs						
	(Facilitating Services)			20006	2689	

① 30% of AEC-ORO Program 18 costs allocated to UEA, Ref F
② AEC Headquarters Administration was determined to be 50% of ORO
③ Community assistance is allocated based on the average daily rate
④ Security Investigation is allocated based on the average daily rate for

⑤
ORGDP	394 mw —	5 hrs. —	1970 mwH
Pad	862 mw —	11 hrs	9482 mwH
GAT	330 mw —	12 hrs	3960 mwH
	1586		15412 " ÷ 1586 = 9.7 (10)

Source of data — AEC Administration costs from ORO Cost
— Other data as noted above.

A 1475

8	9	10	11	12	13	14
			October			
Cost Allocated to Drop	August	Sept	Total Actual Costs	Hourly Rate	Hours of Drop	Cost Allocated to Drop
37520	218788	246167	222969	29969	⑤ 10	2997
11256	65636	73850				899
5348	33718	32630				453
2842	17720	17342				245
56966	336062	369959				4594
3173	34524	22713	21118	2838		284

97 w/P II-3.

ministration, Ref FY1971 w/P II-5.

r FY 1971, Ref. FY71 w/P II-5, 397,000 ÷ 365 = 1087.67/day

FY71, Ref FY71 w/P II-6, 211,000 ÷ 365 = 587.08/day

ct Mgmt. Distribution as noted above.

A 1476

	Initials	Date
Prepared By		
Approved By		

Power Costs
Without 200 MW Power Drop
August and Sept. 1970

		MW Load	MWH	Rate		Amount
August				#		#
ORGDP		345	256674	4.856/Kwh		1246510
		50	37200	4.752		176774
						1423284
Paducah		571	424515	4.399		1867448
		100	74400	4.342		323045
						2190493
Portsmouth		327	243288	4.345		1057088
		50	37200	4.174		152273
						1209361
Sept.						
ORGDP		394	283680	4.899		1389836
		50	36000	4.802		172872
						1562708
Paducah		862	620647	4.590		2848899
		100	72000	4.399		316728
						3165627
Portsmouth		330	237445	4.328		1027557
		50	36000	4.227		152172
						1179731

A 1477

	Initials	Date
Prepared By		
Approved By		

Power [illegible]

[illegible] 200 MW Power Drop

July [illegible]

1	2	3	4	5	6	7
			MW Level	MWH	Rate	Amount
July						$
ORGDP	7-27	0200-2400	389	8558		
	7-28/7-31		389	37344		
				45902	4.857/Kwh	222946
Paducah	7-26	2100-2400	660	1980		
	7-27/7-31		660	79200		
				81180	4.455	361656
Portsmouth	7-26	1900-2400	368	1840		
	7-27/7-31		368	44160		
				46000	4.864	223744
Total July						808346
October						
ORGDP	10-1	0001-0500	444	2220	4.823/Kwh	10707
Paducah	10-1	0001-1100	962	10582	4.691	49640
Portsmouth	10-1	0001-1200	380	4560	2.935	13384
Total Oct.						73731

	Initials	Date
Prepared By		
Approved By		

A 1478

Power Costs
With 200 MW Power Drops
July and Oct 1970

			MW Level	MWH	Rate	Amount
July						
ORGDP	7-27	0200-0700	Various	1820		
		0700-2400	339	5763		
	7-28/7-31		339	32544		
				40127	4.857/KWH	114927
Paducah	7-26	2100-2400	Various	1935		
	7-27	0001-0700	Various	4165		
		0700-2400	560	9520		
	7-28/7-31		560	53730		
				69350	4.455	309057
Portsmouth	7-26	1900-2400	Various	1782		
	7-27	0001-0500	Various	2656		
		0500-2400	315	5058		
	7-28/7-31		315	30558		
				40054	4.864	194823
Total July -						618807
October						
ORGDP	10-1	0001-0600	Various	2489	4.823	12004
Paducah	10-1	0001-1100	Various	9982	4.691	46826
Portsmouth	10-1	0001-1200	Various	4278	2.935	12556
Total OCT.						71386

15

A 1479

	Initials	Date
Prepared By		
Approved By		

MWHrs of Power Released
To Con. Ed.
July — Oct 1970

	Hours	MW Drop	Dropped	MW Hours
August				
ORGDP		50	744	37200
Paducah		100	744	74400
Portsmouth		50	744	37200
Sept.				
ORGDP		50	720	36000
Paducah		100	720	72000
Portsmouth		50	720	36000
Oct.				
ORGDP (10-12)	0001-0100	45	1	45
	0100-0200	35		35
	0200-0300	25		25
	0300-0400	15		15
	0400-0500	5		5
				125
Pad. 10-1	0001-0100	100	1	100
	0100-0200	95		95
	0200-0300	85		85
	0300-0400	75		75
	0400-0500	65		65
	0500-0600	55		55
	0600-0700	45		45
	0700-0800	35		35
	0800-0900	25		25
	0900-1000	15		15
	1000-1100	5		5
				600

A. 1480

MWH's of Power Released To Com Ed July - Oct. 1970

Page 3

	Hours	MW Drop	Hours Dropped	MW Hours
Oct. - Cont				
Portsmouth				
10-1	0001-0100	46	1	46
	0100-0200	42		42
	0200-0300	38		38
	0300-0400	34		34
	0400-0500	30		30
	0500-0600	26		26
	0600-0700	22		22
	0700-0800	19		19
	0800-0900	15		15
	0900-1000	12		12
	1000-1100	8		8
	1100-1200	4		4
				296
	Total MWH Released			317342

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Prepared By	Initials	Date
Approved By		

[illegible]

With 200 MW Power Drop

1 2	3 July 1970	4 August 1970	5 September 1970	6 October 1970	7 Total Four Months
ORGDP					
Power Cost	194397	1246510	1389556	12004	2843247
Fixed Operating Costs	168577	1074230	1277969	8550	2529334
Added Factor Costs	94253	611445	[illegible]	[illegible]	[illegible]
Total - ORGDP	457732	2932193	3266408	24977	6681310
Paducah					
Power Cost	309087	1867448	2848899	46826	5072260
Fixed Operating Costs	153748	940679	1153627	13993	2262047
Added Factor Costs	10173	55150	[illegible]	[illegible]	125917
Total - Paducah	473008	2863177	4062393	61646	7460224
Portsmouth					
Power Cost	194823	1057088	1027559	12556	2292026
Fixed Operating Costs	236808	1520765	1558976	24513	3341062
Added Factor Costs	28606	145473	133279	2294	309602
Total - Portsmouth	460237	2723276	2719814	39363	5942690
AEC					
Added Factor Costs	56966	336062	369989	4594	767611
Fixed Operating Costs	3173	34524	22713	284	60694
					828305
Total Costs					20912529

Source of Data — attached detail worksheet

A 1482

	Initials	Date
Prepared By		
Approved By		

Surcharge Computation
Without 200 MW Power Drop
Summary of Costs

1	3	4	5	6	7
	July 1970	August 1970	September 1970	October 1970	Total Four Months
ORGDP	$	$	$	$	$
Power Cost	222946	1423284	1562708	10707	3219645
Fixed Operating Cost	168577	1074238	1277769	8550	2529134
Added Factor Cost	94258	611445	598803	4423	1308929
Subtotal	485781	3108967	3439280	23680	7057708
1/ Less Extraordinary Maintenance					8000
Total ORGDP					7049708
Paducah					
Power Cost	361656	2190493	3165627	49640	5767416
Fixed Operating Cost	153748	940679	1153627	13993	2262047
Added Factor Cost	10173	55050	59867	827	125917
Subtotal	525577	3186222	4379121	64460	8155380
1/ Less Extraordinary Maintenance					16000
Total Paducah					8139380
Portsmouth					
Power Cost	223744	1209361	1179731	13384	2626220
Fixed Operating Cost	236808	1520765	1558976	24513	3341062
Added Factor Cost	28606	145423	133279	2294	309602
Subtotal	489158	2875549	2871986	40191	6276884
1/ Less Extraordinary Maintenance					8000
Total Portsmouth					6268884
AEC					
Added Factor Cost	56966	336062	369989	4594	767611
Fixed Operating Cost	3173	34524	22713	284	60694
Total AEC					828305
Total Cost					$22286277

Source of Data: Attached detailed worksheets.

1/ Extraordinary maintenance has been determined to be $80 per MW change. The total changes were (both drop and add-back): ORGDP 100 MW, Paducah 200 MW, Portsmouth 100 MW.

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Surcharge Computation

Fixed Operating Costs

	JULY 1970	AUGUST 1970	SEPTEMBER 1970	OCTOBER 1970	Total Four Months
ORGDP [1]					
Cascade Operations	119418	734790	845212	6373	1764505
Plant Test Program	31103	191900	317874	1401	522578
Cascade Scrap Recovery	634	4000	4000	27	8661
Transportation	-0-	-0-	-0-	-0-	-0-
Power Distribution	17122	[illegible]	110812	729	233590
	168577	1074238	1277969	8550	2529334
Paducah [2]					
Cascade Operations	102912	642093	734001	9799	1488802
Plant Test Program	26844	[illegible]	226150	2226	494251
Cascade Scrap Recovery	40	298	324	4	666
Transportation	9518	36001	51494	614	97627
Power Distribution	14434	83319	81657	1230	180640
	153748	940679	1153627	13993	2262047
Portsmouth [3]					
Cascade Operations	193383	1242017	1027370	18713	2481483
Plant Test Program	23212	163956	199720	3391	390279
Cascade Scrap Recovery	2662	12220	11949	214	27035
Transportation	2	449	324	-0-	775
Power Distribution	17609	102073	114401	2195	236278
OVEC Equip Replacement			205102		205102
	236[illegible]	1520765	1558976	24513	3341062

[1] Began reducing power 2:00 A.M. (EST) 7-27-70, resulting in 117 hrs. of use for July. Power fully restored by 6:00 A.M. (EDT) 10-1-70, resulting in 6 hrs. of use for October.

[2] Began reducing power 9:00 P.M. (EDT) 7-26-70, resulting in 123 hrs. of use for July. Power fully restored by 11:00 A.M. (EDT) 10-1-70, resulting in 11 hrs. of use for [illegible]

[3] Began reducing power 7:00 P.M. (EDT) 7-26-70, resulting in 125 hrs. of use for July. Power fully restored by 12:00 A.M. (EDT) 10-1-70, resulting in 12 hrs. of use for [illegible]

Source: Cost-Budget Report except for Power Distribution which came from Power [illegible]

A 1484

UEDH- Actual Costs of Production (Fixed Operating Costs)
July 1970 - October 1970
(Rounded to Nearest Dollar)

	JULY 1970	AUGUST 1970	SEPTEMBER 1970	OCTOBER 1970	Total Four Months
ORGDP					
Cascade Operations [1]	752133	793472	845222	942213	3333975
Per Hour	(1012.31)			(1266.51)	
Plant Test Program [1]	197996	171900	317874	238509	876299
Per Hour	(266.12)			(280.25)	
Cascade Scrap Recovery [1]	4000	4000	4000	4000	16000
Per Hour	(5.38)			(5.38)	
Transportation [1]	-0-	-0-	-0-	-0-	-0-
Per Hour				(-0-)	
Power Distribution [2]	107952	104566	110513	117382	441013
Per Hour	(145.10)			(157.77)	
	1062886	1074238	1277969	1272174	4[illegible]7267
Paducah					
Cascade Operations [1]	622492	642090	734001	662790	2661373
Per Hour	(836.68)			(890.85)	
Plant Test Program [1]	162376	172971	276150	154599	772096
Per Hour	(218.25)			(207.79)	
Cascade Scrap Recovery [1]	244	298	324	247	1113
Per Hour	(.33)			(.33)	
Transportation [1]	57572	26001	51494	45616	190683
Per Hour	(77.38)			(61.31)	
Power Distribution [2]	87309	83319	81658	83172	335458
Per Hour	117.35			111.79	
	929993	940679	1153627	946424	3970723
Portsmouth					
Cascade Operations [1]	1151618	1242017	1029370	1160204	4580609
Per Hour	(1547.07)			(1559.41)	
Plant Test Program [1]	138158	163956	199830	210245	712189
Per Hour	(185.70)			(282.59)	
Cascade Scrap Recovery [1]	15485	12270	11949	13255	52959
Per Hour	(20.81)			(17.82)	
Transportation [1]	12	449	324	-0-	785
Per Hour	.02				
Power Distribution [2]	104507	102073	114401	136062	457343
	140.37			(182.88)	
OVEC Equip. Replacement [3]			285000		285000
	1409450	1520765	1638574	1519766	6088555

[1] Cost-Budget Report

[2] Power Branch - ORGDP
Darwin Clark - Portsmouth
Joe Russell - Paducah

[3] Charged Quarterly - Allocated to Month of power reduction based on an average daily charge for the quarter - 285,000 ÷ 92 days = 3,097.83
3,097.83 × 66.2052 = 205,102.06

A 1485

CFR:amm
73-3529

17

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,
Plaintiff,

-v-

CONSOLIDATED EDISON COMPANY OF
NEW YORK, INC.,
Defendant.

PLAINTIFF'S RESPONSE TO DEFENDANT'S REQUEST FOR PRODUCTION-SET NO.2

74 Civ. 3121 (LWP)

Plaintiff, by its attorney, Robert B. Fiske, Jr., United States Attorney for the Southern District of New York, responds to Defendant's Request for Production--Set No. 2 in this action as follows: Plaintiff will produce for inspection and copying all of the documents identified in its Answers to Defendant's Interrogatories--Set No. 1 to the extent they are not classified and with the exception of those which plaintiff has previously supplied copies of to defendant. Since the documents to be produced are voluminous and are maintained, except as noted below, at plaintiff's facilities in Oak Ridge, Tennessee, they will be available for inspection at Oak Ridge upon reasonable notification to counsel for plaintiff. Some of the documents

CFR:amm
73-3529

referred to in Response to Interrogatories 10(f) and 11(f) are maintained at plaintiff's facilities in Portsmouth, Ohio, and Paducah, Kentucky, and will be available for inspection to the extent they are unclassified at those facilities.

Dated: New York, New York
March , 1977

ROBERT B. FISKE, JR.
United States Attorney

By:______________________________
CHARLES FRANKLIN RICHTER
Assistant United States Attorney
One Saint Andrew's Plaza
New York, New York 10007
Telephone: (212) 791-1972

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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UNITED STATES OF AMERICA,	: 74 Civ. 3121 (LWP)
Plaintiff,	: DEFENDANT'S INTERROGATORIES
-against-	: TO PLAINTIFF -- SET NO. 2
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.,	:
	:
Defendant.	:

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PLEASE TAKE NOTICE that defendant Consolidated Edison Company of New York, Inc., ("Con Edison") by its undersigned attorneys hereby requests plaintiff, United States of America, to answer under oath the following written interrogatories, separately and fully in writing, within thirty (30) days after the date of service of this Notice.

DEFINITIONS

As used in these Interrogatories, the following terms have the following meanings:

A. "AEC" means the former Atomic Energy Commission and its successors, each present and former commissioner, officer, employee, agent or other person acting or purporting to act on behalf of it.

B. "AEC" followed by a number, *e.g.*, "AEC

235", means the document so numbered and produced by plaintiff in response to defendant's Notice to Produce - Set No. 1 (unless the context indicates otherwise).

C. "AEP" means the American Electric Power Company or American Electric Power Service Corporation, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of either of them.

D. "Calculate in detail" means, inter alia, including in plaintiff's response sufficient data and calculations to enable a person reviewing such calculations to check for mathematical correctness each operation of such calculations.

E. "Con Edison" means defendant Consolidated Edison Company of New York, Inc.

F. "CE" followed by a number, e.g., "CE 140", means the document so numbered and produced by defendant in response to plaintiff's Notice to Produce.

G. "Document" means any correspondence, book, pamphlet, periodical, letter, memorandum, including any memorandum or report of a meeting or telephone or other conversation, diary, telegram, telex, cable, report, record, contract, agreement, study, handwritten note, draft, working paper, chart, paper, graph, index, tape, data sheet or data processing card, and any other written, recorded, transcribed, punched, taped, filmed, or graphic matter, however produced or reproduced. As used herein, "document" shall include originals and all nonidentical copies (whether different from the original because of handwritten notes or underlining on the copy or otherwise).

H. "DX" followed by a number, e.g., DX 13", means the Defense Exhibit for Identification so numbered during the taking of depositions in this case.

I. "Identify", when used in reference to a natural person means his full name and present or last known address, his present or last known position and business affiliation, and his position and employer (if plaintiff was employer, specify agency, department, or other division thereof) in 1970.

J. "KWH" means kilowatt hours.

K. "MW" means megawatts.

L. "Person" means any individual, partnership, firm, association, corporation, governmental agency or other legal or business entity.

M. "PX" followed by a number, e.g., "PX 13", means the Plaintiff's Exhibit for Identification so numbered during the taking of depositions in this case.

N. "OEP" means the President's Office of Emergency Preparedness, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of it.

O. "OVEC" means the Ohio Valley Electric Corporation, each present and former director, officer, employee, agent or other person acting or purporting to act on behalf of it.

P. "TVA" means the Tennessee Valley Authority, each present and former commissioner, officer, employee, agent or other person acting or purporting to act on behalf of it.

INSTRUCTION

Neither Interrogatory 1 nor 2 is intended to cover the 450 MW power reduction beginning in early July 1970 or the 200 MW power reduction beginning in late July 1970.

INTERROGATORIES

1. Identify separately each instance during the period from May 5, 1970 to date in which AEC or any successor agency to AEC reduced its power consumption from any of its power suppliers at the request of the supplier or other party. As to each such instance:

(a) State the amount of the reduction (in MW).

(b) State the total power consumption of the AEC's or its successor's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

(c) Identify the power supplier or other party initiating such request for reduction and the reason(s) for such request as expressed to plaintiff.

(d) State whether, in connection with such reduction, the power supplier or other party either at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

(e) State whether, in connection with such reduction, the power supplier or other party supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the quantity of such power premium or amount of such surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier or other party for the same;

(iii) state how the power premium or surcharge was calculated.

(iv) state the reasons for such power premium or surcharge.

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses, efficiency losses or other losses as a result of the reduction? If so, how much?

(f) Did plaintiff in fact suffer any mixing losses, efficiency losses or other losses as a result of the reduction? If so, calculate in detail the quantity of the same.

(g) State whether, during the period of such reduction, equipment in the AEC's or its successor's gaseous diffusion plants was turned off, broke down or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

(h) Were any efficiency, mixing or other losses caused by the power reduction passed on to the AEC's enrichment customers in any fashion.

(i) If the answer to (h) is affirmative, explain in detail how and to what extent this was done.

(j) If the answer to (h) is negative, explain why it was not done.

2. Identify separately each instance during the period from May 5, 1970 to date in which AEC or any successor agency to AEC reduced its power consumption from any of its power suppliers at its own request and with the approval of the supplier.

As to each such instance:

(a) State the amount of the reduction (in MW).

(b) State the total power consumption of the AEC's or its successor's gaseous diffusion plants (i) immediately prior to the reduction; (ii) during the reduction; and (iii) immediately after the reduction.

(c) Identify plaintiff's reasons for seeking reduction of the power and identify the power supplier involved.

(d) State whether, in connection with such reduction, the power supplier at some other time supplied plaintiff with power equivalent to that reduced or credited plaintiff's bills at the price of the power so reduced.

(e) State whether, in connection with such reduction, the power supplier supplied plaintiff with a quantity of power in excess of the power reduced ("power premium") or paid plaintiff a surcharge. If the answer is affirmative:

(i) state the amount of such

power or surcharge;

(ii) what arrangements, if any, were made by plaintiff and the supplier for the same;

(iii) state how the power premium or surcharge was calculated;

(iv) state the reasons for such power premium or surcharge;

(v) absent such a power premium or surcharge, would the plaintiff have suffered any mixing losses or efficiency losses as a result of the reduction? If so, how much?

(f) Did plaintiff in fact suffer any mixing losses or efficiency losses, as a result of the reduction? If so, calculate in detail the quantity of the same.

(g) State whether, during the period of such reduction, equipment in the AEC's or its successor's gaseous diffusion plants was turned off, broke down, or tripped out. Identify such equipment and state whether such turning off, breaking down, or tripping out was caused by the reduction.

(h) Were any efficiency, mixing or other losses caused by the power reduction passed on to the AEC's enrichment customers in any fashion?

(i) If the answer to (h) is affirmative, explain in detail how and to what extent this was done.

(j) If the answer to (h) is negative, explain why it was not done.

3. (a) Identify each person plaintiff expects to call as an expert witness at trial.

(b) As to each person identified in (a) above, state the subject matter on which the expert is expected to testify.

(c) As to each person identified in (a) above, state the substance of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion.

4. As to the power reduction identified by plaintiff in its answer to First Set Interrogatory 11,

(a) Did plaintiff in fact suffer any mixing, efficiency, or other losses as a result of this reduction. If so, calculate in detail the quantity of the same.

(b) Were any efficiency, mixing or any other losses caused by the power reduction passed on to the AEC's enrichment customers in any fashion?

(c) If the answer to (b) is affirmative, explain in detail how and to what extent this was done.

(d) if the answer to (b) is negative, explain why it was not done.

5. (a) Calculate in detail, based upon actual cost and production data, the mixing, efficiency, and other losses attributable to the 450 MW release of power commencing in early July 1970, including the total increased cost of production, the increase in unit cost of production, and the corresponding rate per KWH of such increased costs.

(b) Identify the natural person(s) responsible for preparation of plaintiff's answer to (a) and the source data upon which it is based.

6. (a) Explain separately and in detail the theory underlying each of the alternative methods of surcharge calculation set forth in CE 205 (i.e., Case I, Case II, and Case III).

(b) Separately for each of the above three theories, calculate in detail, based upon actual cost and production data, the total increased cost of production for the 200 MW release, the corresponding increase in unit cost of production, and the corresponding rate per KWH of such increased costs.

(c) If the calculations contained in your answer to (b) differ from those in CE 205, explain in detail why.

(d) Identify the natural person(s) responsible for preparation of plaintiff's answers to (a)-(c) and the source data upon which they are based.

7. (a) Explain in detail the theory underlying the method of surcharge calculation set forth in CE 204.

(b) Calculate in detail, based upon actual cost and production data and according to the theory set forth in CE 204, the total increased cost of production for the 200 MW release, the corresponding increase in unit cost of production, and the corresponding rate per KWH of such increased costs.

(c) If the calculations contained in your answer to (b) differ from those in CE 204, explain in detail why.

(d) Identify the natural person(s) responsible for preparation of plaintiff's answers to (a)-(c) and the source data upon which they are based.

8. Identify the natural person(s) responsible for preparation of plaintiff's answer to First Set Interrogatory 21.

9. Identify all documents in plaintiff's possession or control relating to the answer to each Interrogatory or subparagraph thereof, by indicating the nature of each such document (e.g., letter, memo, etc.), author, date, and the Interrogatories and subparts thereof to which it relates. If a document has already been identified as a "PX", "DX", "AEC", "OEP", or "CE" document, it is sufficient to identify the document as such.

Date: New York, New York
March 16, 1977

A Member of the Firm
SHEARMAN & STERLING
Attorneys for defendant
Consolidated Edison
Company of New York, Inc.
53 Wall Street
New York, New York 10005

To:

ROBERT B. FISKE, JR.
United States Attorney for the
Southern District of New York
(Attention: Charles Franklin Richter, Esq.)
Attorney for plaintiff
United States Courthouse Annex
One St. Andrew's Plaza
New York, New York 10007
(212) 791-1972

A 1501

FOR EXHIBIT FOLDER

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

-------------------------------------x

UNITED STATES OF AMERICA, :

Plaintiff, : 74 Civ. 3121
L.W.P.

-against- :

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., :

Defendant. :

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DEFENDANT'S REQUEST FOR PRODUCTION OF DOCUMENTS PURSUANT TO RULE 34--
SET NO. 3

PLEASE TAKE NOTICE that, pursuant to Rule 34, Federal Rules of Civil Procedure, defendant Consolidated Edison Company of New York, Inc. ("Con Edison"), by its undersigned attorneys, requests that plaintiff United States of America produce at the offices of Shearman & Sterling, 53 Wall Street, New York, New York 10005, on April 15, 1977, at 10:00 a.m. and permit Con Edison to inspect and copy the following documents (as defined in defendant's Interrogatories to Plaintiff--Set No. 2) now in defendant's possession, custody or control. It is requested that the paragraph(s) or subparagraph(s) of the interrogatories in response to which each document was identified and in response to which, in connection with these requests, each document is produced be indicated.

DOCUMENTS TO BE PRODUCED

Each document requested to be identified in Defendant's Interrogatories to Plaintiff--Set No. 2.

Dated: New York, New York
March 16, 1977

SHEARMAN & STERLING

By
A Member of the Firm
Attorneys for Defendant
Consolidated Edison
Company of New York, Inc.
53 Wall Street
New York, New York 10005
(212) 483-1000

TO: ROBERT B. FISKE, JR., ESQ.
United States Attorney for the
Southern District of New York
(Attn: Charles F. Richter, Esq.)
Attorney for Plaintiff
United States Courthouse Annex
One St. Andrew's Plaza
New York, New York 10007
(212) 791-1972

CFR:lq
4-2087

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

- - - - - - - - - - - - - - - - - - - -x

UNITED STATES OF AMERICA, :

Plaintiff, : **ORDER**

- v - : 74 Civ. 3121 (L.W.P.)

CONSOLIDATED EDISON COMPANY :
OF NEW YORK, INC., :

Defendant. :

- - - - - - - - - - - - - - - - - - - -x

Upon defendant's Motion for Relief Under Rule 37, Federal Rules of Civil Procedure, dated March 1, 1977 (as supplemented by the letters of the parties dated March 18, 22, and 28, 1977) and upon plaintiff's Motion for a Protective Order, brought on by an Order to Show Cause dated March 22, 1977, both matters having been referred to the undersigned by the Honorable Lawrence W. Pierce, United States District Judge, and argument having been heard on March 28, 1977,

IT IS HEREBY ORDERED:

A. Defendant's Rule 37 Motion

1. Plaintiff will supplement its answers to Defendant's Interrogatories--Set No. 1 ("First Set Interrogatories") as follows:

a. It will provide all of the information requested in Interrogatory No. 8(d), (e), (k) and (t).

b. It will provide the last known business address, or, if such address is not available, the last known home address, of those persons listed in plaintiff's answer to Interrogatory No. 23 who are no longer employed by plaintiff. As to all other persons named in such answer, their addresses need not be given and it will be sufficient to state that they are presently employed by plaintiff.

c. It will state (1) whether there were instances between 1968 and May 5, 1970, other than the one described in answer to Interrogatory No. 10, in which the AEC reduced its power consumption from any of its power suppliers at the request of the suppliers or other party, (2) if so, whether the AEC incurred losses of the type sought by plaintiff in this action and (3) whether any surcharge or power premium was obtained by the AEC from such suppliers or other party to compensate the AEC for such losses.

2. Plaintiff will produce in New York copies of those documents listed on page two of defendant's letter of March 28, 1977, in this action which can be conveniently brought to New York and which are not classified. All other documents will be available for inspection as described in Plaintiff's Response to Defendant's Request for Production--Set No. 2.

3. Plaintiff will identify any additional documents upon which it relied in preparing the answers to the First Set Interrogatories but which were not identified in such answers nor previously made available in response to defendant's Request for Production of Documents--Set No. 1 and will produce copies of such documents in New York to the extent they can be conveniently brought to New York and are not classified.

4. The remainder of defendant's motion for relief under Rule 37 of the Federal Rules of Civil Procedures is denied.

B. Plaintiff's Motion for a Protective Order

1. Defendant will be permitted to take the deposition of Walter E. Scarbrough on or before April 12, 1977, at the offices of the United States Attorney for the Southern District of New York. Such deposition shall not exceed one day. Defendant may depose Mr. Scarbrough on plaintiff's derivation of alleged damages, as contained in plaintiff's answer to First Set Interrogatory No. 21, including the bases, assumptions (and alternatives) and calculations of such damages, as well as discrepancies and inconsistencies between such derivation and previous derivations.

2. Plaintiff will cause B. C. Bowers to answer under oath the following questions after providing him a copy of the document annexed as Exhibit A to the First Set Interrogatories and providing him an opportunity to review the same:

"A. State your full name, present employment, and your employment, position and duties in 1970.

"B. Describe what the document shown to you as Exhibit A represents, the assumptions underlying it, and the methodology of its calculation.

"C. What are the sources of the figures used in the calculations of Exhibit A?

"D. When was this document prepared?

"E. For whom was it prepared?

"F. What happened or was decided, if anything, as a resul of this document or its calculations?"

3. With respect to Interrogatories to Plaintiff -- Set No. 2 ("Second Set Interrogatories"), plaintiff will identify instances from May 5, 1970, to date in which the AEC or its successors reduced its power consumption from any of its power suppliers at the request of the supplier or other party and will state whether or not any "surcharge" or "power premium" was obtained by the AEC or its successors from its power suppliers or from any other party, and, if so, the amount of the surcharge or power premium.

4. (a) Plaintiff will answer Second Set Interrogatory 3.

(b) Defendant will answer Second Set Interrogatory 3 as though it were addressed to defendant.

(c) Defendant will submit to plaintiff a statement indicating in what ways defendant disputes plaintiff's present calculation of alleged efficiency and other losses claimed as damages (to the extent plaintiff's methodology is known to defendant at the time of such submission).

5. Plaintiff will answer Interrogatory 8.

6. Plaintiff will answer Interrogatory 9, but limiting its identification only to documents upon which it has relied in answering the Second Set Interrogatories as modified by this Order.

7. Plaintiff will comply with the Document Request -- Set No. 3 in the same fashion as with respect to Document Request -- Set No. 2 as described above.

8. Plaintiff's motion for a protective order with respect to defendant's Second Set Interrogatories, Third Set Document Request and two Notices of Deposition (dated March 18 and 28, 1977) is otherwise granted.

C. Schedule

The parties will perform all of the requirements of this order on or before April 12, 1977.

D. Appeal

Any party wishing to appeal any part of this order to Judge Pierce shall do so on or before April 8, 1977.

Dated: New York, New York
April 7, 1977

Leonard Bernikow
LEONARD BERNIKOW
United States Magistrate

A 1507

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF EMERGENCY PREPAREDNESS
WASHINGTON, D.C. 20504

OFFICE OF THE DIRECTOR

MAR 30 1970

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Chairman:

The White House has asked me to look into the likelihood of brownouts or blackouts this summer on the eastern seaboard due to shortages of power, and what planning steps are being taken to prevent these occurrences. It seems to me that investigation of this problem needs to include the reasons for any possible shortfall in energy compared to likely requirements. There has already been a partial study of this problem which has concerned the relationship of the availability of coal for production of power.

I am asking each agency primarily concerned with this problem to send a representative who can discuss policy matters for you to meet with me in my conference room at 10:00 a.m., Monday, April 6, for about an hour. The purpose of the meeting will be to provide a quick roundup of the possible problems throughout the remainder of the year and plans being made to meet any such problems.

With the agreement of Dr. Lee A. DuBridge, I propose to appoint a working group chaired by Mr. David Freeman of his office, and composed of representatives of each agency attending the meeting, to draft a paper on the question raised by the White House.

Will your office please inform Mr. Charles Primoff, Code 103, extension 5794, of the name of your representative.

Sincerely,

SIGNED

G. A. Lincoln
Director

PX 1

STATEMENT BY THE HONORABLE GEORGE A. LINCOLN
DIRECTOR OF THE OFFICE OF EMERGENCY PREPAREDNESS
EXECUTIVE OFFICE OF THE PRESIDENT
REGARDING ELECTRIC POWER PROBLEMS FOR 1970

[illegible]

We have recently studied the problems of electric power supply in various sections of the U.S. in the coming months, in cooperation with the Office of Science and Technology, Department of the Interior, the Federal Power Commission, and other government agencies.

We find that electric power plant generating capacity to meet peak loads this summer will be in tight supply in many areas in the East and Midwest. Furthermore, production of coal, the principal fuel for power generation, may be inadequate to rebuild stocks to normal levels. Moreover, some power companies have very low stocks and may face real coal shortages this summer. The coal supply problem is further compounded by the fact that natural gas is in short supply.

Electricity is the lifeblood of our high energy civilization. It is imperative that industry and government work together in order to avert disruptions to the consuming public. To assist in this effort, the following measures will be undertaken by the Federal government:

-- The Interior Department will continue to maintain close surveillance of the fuel supply situation for the coming months with special attention focused on programs of technical assistance and other measures to allow mines to facilitate compliance with the Federal Coal Mine Health and Safety Act with minimum disruption of coal production.

PX 2

-- The Secretary of the Interior will develop legislation or other programs necessary to broaden our energy base consistent with our environmental and mineral needs.

-- The Interstate Commerce Commission will streamline procedures for taking prompt action to exercise statutory authority to accord priority for the use of hopper cars in the movement of coal to utilities on notification by utilities or coal suppliers of car shortages.

-- The AEC will make arrangements to curtail production this summer at the AEC gaseous diffusion plants, which use large amounts of electricity. This could release coal supplies and generating capacity which could be used to assist in meeting fuel shortages and peak loads of the consuming public in parts of the inter-connected system. The diffusion plants are being used, in part, to produce enriched uranium for future use in nuclear power plants.

-- The Administrator of the General Services Administration and other Agency Heads will conserve, wherever possible, the use of electricity in civil government installations, and draw up plans for additional reductions, if necessary, during the summer peaks.

-- The Secretary of Defense will take similar actions for defense installations.

These steps, when combined with contingency plans of the utilities, should be successful in reducing or eliminating brownouts during the coming months. We will make available the information at our disposal to the Governors, State utility commissions, and mayors in the areas where shortages in power supply appear to be possible this summer. The State and local government agencies concerned should meet with the utilities in their respective service areas to review contingency plans for meeting loads during the coming summer. The Federal Power Commission will continue to work closely with the utilities and government agencies to maintain power supply.

We will, of course, continue to follow the situation closely and make any relevant information that may affect electric power capacity for this summer and the coming winter available to appropriate State and local authorities.

- OEP -

A 1511

Survey of Electric Power Problems

May 1970

OFFICE OF
EMERGENCY
PREPAREDNESS
EXECUTIVE OFFICE OF THE PRESIDENT

A 1512

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF EMERGENCY PREPAREDNESS
WASHINGTON, D.C. 205

SURVEY OF ELECTRIC POWER PROBLEMS

Prepared by a Committee consisting of
representatives of:

Atomic Energy Commission
Federal Power Commission
Department of Health, Education, and Welfare
Department of the Interior
Interstate Commerce Commission
Office of Science and Technology
Office of Emergency Preparedness, Chairman

May 5, 1970

SURVEY OF ELECTRIC POWER PROBLEMS

A. INTRODUCTION

The power supply situation in the eastern United States appears to be somewhat worse than last summer when we experienced voltage reductions, appeals to reduce use, and interruption of some industrial loads. At present, it appears that generating capacity is the major bottleneck.

This summer the entire eastern seaboard, except for New England and Florida, will face a tight power capacity problem even if normal summer temperatures prevail, fuel supplies are adequate, and all of the system capacity performs as scheduled.

It should be recognized that some reserve capacity estimates are dependent on new large units whose reliability is uncertain, and a large number of small units which are past retirement age. The estimates also assume a normal summer. Peak loads could be several percent higher than utility estimates. A combination of an intense heat wave and poorer-than-expected power system performance could result in the elimination of reserve margins and a failure to meet peak loads.

Faced with limited stocks of fuel in localized areas and insufficient capacity in many areas, it appears advisable for the utilities and Government at the local, State, and Federal level to take immediate measures that might ease the situation in the potential problem areas and develop contingency plans rather than to accept the risks associated with treating the situation as an emergency arises.

B. FUEL SUPPLY FOR ELECTRIC POWER GENERATION

1. Coal

The Department of the Interior currently estimates that domestic production of bituminous coal and lignite will total 571 million tons in 1970. This tonnage assumes that the industry will be operating at over 90% of its demonstrated productive capacity on a normal work schedule. Production could be moderately higher if conditions are generally favorable. It could be substantially lower if there are prolonged strikes in the mines or other disruptions.

The estimate gives consideration to the expected impact of the Federal Coal Mine Health and Safety Act to the extent it can be foreseen at this time. We [illegible] have reservations as to the firmness of the estimate because of the uncertainty that currently exists as to the number of mines that will close rather than comply with the Act, as well as the loss of production likely to occur as companies take the measures necessary to assure compliance.

Safety standards went into effect on March 30; dust standards go into effect on June 30, 1970. It is too early to assess the effects of the Act on production but the effects could be substantial. Mine closures that have occurred to date do not affect substantial production and are not considered sufficient sample to indicate the overall impact.

The estimate of 571 million tons for the year also assumes that there will be no significant shifts in existing fuel consumption patterns and that high-sulfur fuel can continue to be burned in power plants that presently utilize such fuels. It is our understanding that air pollution control regulations will not add to the fuel supply problem this summer but increasingly will be a factor unless technology to remove sulfur from power plant stack gases and fuels is promptly developed and applied, and substantial additional supplies of low sulfur fuels are provided.

Domestic coal consumption plus coal exports for 1970 are estimated at 583 million tons. If the estimates are correct, there will be a short-fall of 12 million tons for the year. The electric utilities will consume 328 million tons or over 55% of total. Utility requirement for coal could be even higher if natural gas for utility use is in short supply. Of the non-utility coal, much of it is coking coal which is higher priced than utility coal and coal already committed to export markets.

Electric utility coal stocks on January 1, 1970, were 62 million tons (66 days' supply). On April 1, they were estimated at 52 million tons (60 days' supply). The stock situation is expected to improve during the current quarter but then deteriorate in July when consumption plus exports are expected to exceed production by 12 million tons due to the miners' vacation period. A monthly low of 48 days' supply is expected at the end of July. Thereafter, total stocks are expected to gradually increase through October. However, consumption and exports in the last two months of the year will exceed expected production, and the stock position will slip.

Coal in the possession of electric utilities is expected to be about 53 days' supply at the end of 1970. Tha. compares with 66 at the end of last year.

If these estimates hold true, coal supply in general should not be a bottleneck this summer. However, the supply is sufficiently tight that individual power companies might still experience shortages; and we should not overlook that possibility.

More troublesome is the prospect for this winter. Stocks are not being rebuilt; in fact, they are down as compared to 1969. We need to begin now to take measures to reverse this trend.

We stress that this analysis of coal production for the year is preliminary. Satisfactory experience under the Coal Mine Health and Safety Act is crucial to the estimate. We are continuing to receive information from the utilities to point up trouble spots this summer and the extent of the fuel problem this winter.

2. Residual Fuel Oil

Utility consumption of residual fuel oil has increased rapidly in the last several years, particularly on the East Coast. Most plants which could benefit from the use of residual oil have already been converted or are in the process of conversion. It does not appear that there is significant coal-fired capacity which could be switched to residual oil this summer or even within the next year. Some capacity that is not equipped to fire residual oil might be converted at considerable expense. However, such conversion would require taking equipment off the line for extended periods. This does not appear practical in view of low levels of reserve generating capacity.

Additional supplies of imported residual oil may be available on the East Coast but transportation facilities to move the oil up the Mississippi River are not readily available.

Low sulfur oil is in short supply, and supplies beyond those now scheduled would probably originate in North Africa which would involve long tanker hauls and considerable advance planning.

For inland areas, domestic refineries could probably alter operations to increase residual oil supplies at substantially higher prices. However, the immediate capability of inland steam - electric plants to use residual oil is limited.

In summary, residual oil possibly can make a larger contribution to fuel supply but not by summer, or in any significant quantity, [illegible] this winter.

3. Natural Gas

In the East and Midwest some coal-fired plants burn natural gas during the summer when non-power gas loads are at a seasonal low. However, natural gas companies had drawn heavily on storage last winter, and several may not supply the expected volumes of gas to utilities this summer. To the extent that natural gas is not available as expected, the requirements for coal would be increased over our estimates. The possibility of using additional gas in lieu of coal is not a realistic alternative in view of the tight gas supply.

Looking ahead to the winter, we see a serious problem for those plants outside the Southwest that rely on natural gas in the winter months, a factor which adds to our concern over coal supply for the winter.

4. Transportation of Fuel

The ICC suggests that rail transportation for the movement of coal to electric utilities should not present a general problem for the summer. However, many utilities have experienced car shortages and still consider transportation a major bottleneck. The ICC has statutory authority to issue priorities on hopper cars for the movement of coal to alleviate bottlenecks. Procedures should be streamlined and actions taken to exercise such authority when problems are brought to their attention in a timely manner.

C. ADEQUACY OF GENERATING CAPACITY FOR THIS SUMMER'S PEAK LOADS

It should be noted that reserves of 15% to 20% are considered normal to guard against unexpected equipment failures and higher peak loads than predicted. Although we mention in our discussion units becoming available after May 31, these are not counted as reliable units. There is great uncertainty as to their reliability in the early stages of operation.

1. New England

Not a serious problem area for this summer since it has 15% reserves in fiarly reliable units.

2. New York State

Statewide reserves equal 18%, but New York City reserves are not considered adequate. Consolidated Edison's reserves would be largely eliminated if its largest unit (1000 Mw Ravenswood) goes out. Gas turbines, if available, may provide some peaking capacity reserves. Upstate New York has some ability to help New York City, but this has been reduced by the unavailability of a major nuclear plant (Nine Mile Point).

3. Pennsylvania-New Jersey-Maryland

This area has insufficient reserve capacity. It has reserves of 9.3% equivalent to the combined capacity of those large units which have been experiencing startup or continuing operating trouble: Conemaugh, Keystone, and Oyster Creek. If these three units are out, the area has no reserves. It has a few gas turbines ordered and one new unit at the Morgantown generating station in Maryland, which possibly might add 2% to its reserves in July.

4. The Southeast

This area has insufficient reserve capacity from Virginia through the Carolinas, Georgia, Alabama, and Mississippi. The CARVA pool (Virginia, North Carolina and South Carolina) has reserves of only 6.5%, more than 50% of which are in one unit. The Southern Company utilities serving Georgia, Alabama, Mississippi have reserves of only 8.6%. On the other hand, TVA and the Florida pool are in reasonably good position with reserves of upwards to 15%, but one-half of TVA's reserves is equal to the rating of one unit, and there are tight power supply areas within the Florida pool (i.e., Jacksonville has only 10.6% reserves).

5. East Central

This area, which includes Michigan, Ohio, Indiana, Kentucky, and West Virginia, is in reasonably good position with reserves in excess of 15%.

6. West Central

Large regions of this area, including Wisconsin and Iowa, have good reserves but there are potentially critical spots which center in Chicago, St. Louis, and Minneapolis-St. Paul. Commonwealth Edison serving Chicago has only 5.5% reserves. Its large first-of-a-kind nuclear unit, Dresden 2, is scheduled for initial operation this summer, but this new unit can not be counted on for firm power during the initial months of operation. Union Electric serving St. Louis will have no reserves unless a new fossil unit, Labadie, scheduled for June is available. Northern States Power Company serving Minneapolis-St. Paul also has no reserves. Its new nuclear unit, Monticello, is scheduled for operation late this summer, but cannot be counted on for firm power during its initial operating period.

7. South Central and Western Regions

There appear to be no serious capacity problems in these regions. However, the South Central region is depending on 1500 Mw, from TVA this summer. Without this, the South Central reserve is 12.7%.

A 1519

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF EMERGENCY PREPAREDNESS
WASHINGTON, D.C. 20504

OFFICE OF THE DIREC

MAY 5 1970

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Chairman:

At the request of the President, I am issuing today the enclosed statement and Survey of Electric Power Problems. The substance of these documents were approved by the Interagency Committee which included in its membership Milton Shaw, your Director, Division of Reactor Development and Technology.

The statement reads in part: "The Atomic Energy Commission will make arrangements to curtail production this summer at the AEC gaseous diffusion plants, which use large amounts of electricity. This could release coal supplies and generating capacity which could be used to assist in meeting fuel shortages and peak loads of the consuming public in parts of the inter-connected system."

In view of the urgency and significance of the power situation please take the necessary steps to implement these measures.

Will you please advise me of any major problems you encounter and provide a progress report by May 29, 1970 and successively by the end of each month until further notice.

Sincerely,

(Signed)

G. A. Lincoln
Director

Enclosures

A 1520

bcc: Chairman (2)
Commissioner Ramey
Commissioner Johnson
[illegible]
Commissioner [illegible]
GM (2)
AGMPP
SECY (2)
OGC
S. R. Sapirie, ORO
M. Shaw, RDT
Leo Meyer, CONS

MAY 22 1970

Honorable George A. Lincoln
Director
Office of Emergency Preparedness
Executive Office of the President
The White House

Dear Mr. Lincoln:

Thank you for sending us a copy of the statement you issued on May 5 regarding electric power problems for 1970.

In response to your request that we make arrangements to curtail production this summer at AEC's gaseous diffusion plants in order to release electric power generating capacity which could relieve shortages in meeting the needs of the consuming public, initial discussions have been conducted with the three power suppliers: Tennessee Valley Authority, Ohio Valley Electric Corporation and Electric Energy, Inc. We are pleased to report that arrangements on a mutually agreeable basis to reduce power deliveries at the three plants are feasible. Although the making of detailed arrangements with the power suppliers is not practicable at this time, our experience in assisting TVA in meeting peak loads last January during an abnormal equipment outage period indicates that timely action is certainly possible should the need arise.

It is our understanding that the Executive Office of the President will advise us of any emergency situations in which we are to execute the plan to release power to our suppliers.

Cordially,

/s/ Glenn T. Seaborg

Chairman

PA
YAKIMCHICK
5/ /70

OGC
5/ /70

CONS
MEYER
5/ /70

PX 4

OFFICE ▶	PA	P:DIRECTOR	AGMPP	EAGM	DGM	GM
SURNAME ▶	RUSSELL:pr	BARANOWSKI				
DATE ▶	5/20/70	5/ /70	5/ /70	5/ /70	5/ /70	5/ /70

Form AEC-318 (Rev. 9-53)

U.S. GOVERNMENT PRINTING OFFICE: 1959—O-364-598

A 1521

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June [illegible], 1970

SECRETARIAT

AEC 1[illegible]

INFORMATION MEETING ITEM

CORRESPONDENCE WITH FPC RE POWER REDUCTIONS

Note by the Secretary

The General Manager has requested that the following correspondence be circulated for notation by the Commission at the Information Meeting scheduled for Friday, June 26, 1970:

	Page
a. Letter of June 24, 1970 from the General Manager to the Acting Chief, Bureau of Power, Federal Power Commission, with enclosures..	2
b. Letter of June 25, 1970 from the Acting Chief, Bureau of Power, Federal Power Commission to the General Manager....	9

W. B. McCool

Secretary

DISTRIBUTION	NO. OF COPIES
Secretary	7
Chairman Seaborg	4
Commissioner Ramey	1
Commissioner Johnson	1
Commissioner Thompson	1
Commissioner Larson	1
General Manager	2
Deputy Gen. Mgr.	1
Asst. Gen. Mgr.	1
Exec. Asst. to GM	1
Spec. Asst. to GM	1
Asst. GM for Admn.	1
Asst. GM for Plans & Prod.	1
Asst. GM for Reactors	1
General Counsel	1
Congr. Relations	1
Controller	1
Inspection	1
Production	1
Public Information	1
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PX 5

OFFICIAL USE ONLY

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:
PWR-ER

June 25, 1970

Mr. R. E. Hollingsworth
General Manager
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Hollingsworth:

This is in response to your letter of June 24 stating that the AEC is prepared to reduce the total power load at its gaseous diffusion plants by a total of 450 megawatts to assist utilities facing tight power-supply situations this summer.

Following receipt of your advice that such power could be made available and in compliance with the oral request of the Director, Energy Policy Staff, Office of Science and Technology, to the Federal Power Commission, our regional engineers in Chicago, Atlanta, and New York made contact with all of the principal systems with apparent reserve deficiencies in their areas to assure that concerned utilities were informed about the availability of power through curtailment of the AEC loads. It was suggested that those who had any interest in such power notify the appropriate regional engineer. In addition the American Public Power Association and the National Rural Electric Cooperative Association were notified concerning the availability of the 450 megawatts of power.

Reserve margins amounting to 15 to 20 percent of expected peak load demand generally are considered necessary to provide for forced outages, required maintenance, uncertainties in load forecasting and other contingencies.

A list of all the companies and organizations contacted showing their reserve margins as of May 8, 1970 is enclosed. Also enclosed is a list showing the reserves of the sponsoring utilities of OVEC and EEInc. and TVA, all of which supply power to AEC gaseous diffusion plants, and the participation ratios of each sponsor.

Under present contractual arrangements power made available to OVEC or EEInc. by way of a reduction in power taken by AEC at its gaseous diffusion plants must be paid for by the sponsoring utilities of these two organizations in accordance with formulae contained in

"Meeting Today's Challenges Providing for Tomorrow's Goals"

the agreements. Such sponsoring companies are each entitled to their proportionate share of any such power available from OVEC and EEInc. in accordance with participation ratios contained in the respective contractual agreements. These agreements are "rate schedules" under the Federal Power Act and as such are subject to the rate regulatory jurisdiction of the Federal Power Commission. In addition, any sales of power by the sponsoring utilities to one another or to third parties would be subject to this Commission's rate regulatory jurisdiction. It should be noted that this Commission has no jurisdiction over rates charged by TVA.

To date, our regional engineers have been advised that Commonwealth Edison Company is negotiating for 188 megawatts of power from the Paducah suppliers; that the Cincinnati Gas and Electric Company will contract for its share of power released at Portsmouth and for any such power allocated to other sponsors which they do not claim; that the sponsors of OVEC are members of ECAR and that the power made available to OVEC will be utilized within ECAR or made available to neighbors if needed; that the Southern System has contacted OVEC and EEInc., and has been advised that no power from the gaseous diffusion plants can be made available to them; and that the CARVA systems have contacted TVA and EEInc. and were advised that no power could be made available by the reduction in loads at gaseous diffusion plants. We understand that TVA will assist neighboring systems in tight power-supply situations to the extent possible.

As of this date, the only major unit which is out of service for a known extended period of time and which had been expected by the company to be available is the Dresden No. 2 nuclear unit on the Commonwealth Edison Company system. No other major differences in reserve capacity situations have been reported to us except for the loss of partial capacity at the Hammond plant on the Georgia Power Company system. Other than these situations, we know of no others which represent any more serious conditions than those forecast in the FPC and OEP news releases on the summer load-supply situation.

In view of the foregoing, it is apparent that the release of 450 Mw of generating capacity at the AEC gaseous diffusion plants would be helpful in assisting utilities whose current reserves are so low as to present a potential emergency situation this summer.

Very truly yours,

George E. Tomlinson

George E. Tomlinson
Acting Chief, Bureau of Power

Enclosures No. 43243

A. 1524

Reserves of Utilities
Contacted by FPC Regional Engineers Regarding Capacity Available from AEC Gaseous Diffusion Plants

Name of System	Load MW	Reserves MW	Reserves Percent
Consolidated Edison Co. of N.Y.	7,725	1,121	14.5
PJM Interconnection	25,665	2,354	9.2
ECAR			
Cleveland Electric Illuminating Co.	2,560	620	24.2
American Electric Power	8,417	1,410	16.8
Louisville Gas & Electric Co.	1,238	369	29.8
Northern Indiana Public Service Co.	1,554	147	9.5
Ohio Edison	3,085	722	23.4
Kentucky-Indiana Pool	4,577	338	7.4
Southern Indiana Gas and Electric Co.	475	140	29.5
The Toledo Edison Co.	696	163	16.8
Columbus and Southern Ohio Electric Co.	1,270	102	8.0
The Cincinnati Gas and Electric Co.	1,950	(-56)	(-2.9)
The Dayton Power & Light Co.	1,410	40	2.8
Duquesne Light Co.	1,869	335	17.9
Allegheny Power System	3,355	623	18.6
Cleveland, Ohio Div. of Light and Power	113	79	69.9 1/
Northern States Power Co.	3,126	(-81)	(-2.6)
Commonwealth Edison Co.	10,380	1,399	13.5 2/
Union Electric Co.	3,966	4	0.1
Southern Co. System	12,080	1,034	8.6
Carva			
Virginia Electric & Power Co	5,200	357	6.9
Duke Power Co.	6,390	347	5.4
Carolina Power & Light Co.	3,385	286	8.4
South Carolina Power and Light Co.	1,500	88	5.9
Florida Power & Light Co.	4,700	823	17.5
Florida Power Corp.	1,996	263	13.2
Tampa Electric Co.	1,182	253	21.4
Jacksonville, Florida	877	93	10.6
TVA	13,980	2,171	15.5

1/ The Cleveland, Ohio Municipal System was contacted because it operates independently and has a large new unit about equal to its reserves. Boiler trouble has been experienced with this unit and its dependability is questioned.

2/ Commonwealth Edison has only 5.5 percent reserves if its Dresden #2 unit is out of service. It is now out of service and its availability to meet er loads is questionable.

A 1525

Ohio Valley Electric Corp.
(Portsmouth)

	Percent Participation	Reserves	
		MW	Percent
Cincinnati, Columbus, Dayton Pool			
Columbus & Southern Ohio	4.3	102	8.0
Dayton Power & Light Company	4.9	40	2.8
Cincinnati Gas & Electric Co.	9.0	(-56)	(-2.9)
Kentucky-Indiana Pool		338	7.4
Kentucky Utilities	2.5		
Louisville Gas & Electric Co.	7.0	369	29.8
Southern Indiana Gas & Electric Co.	1.5	140	29.5
Toledo Edison Co.	4.0	163	16.8
Ohio Edison Co.	14.5)	722	23.4
Pennsylvania Power Co.	2.0)		
American Electric Power		1,410	16.8
Appalachian Power Co.	15.2		
Indiana & Michigan Electric Co.	7.6		
Ohio Power Co.	15.0		
Allegheny Power System		623	18.6
Monongahela Power Co.	3.5		
The Potomac Edison Co.	2.0		
West Pennsylvania Power Co.	7.0		

Electric Energy Inc.
([illegible])

	Percent Participation	Reserves	
		MW	Percent
Illinois-Missouri Pool			
Central Illinois Public Service Co.	20	202	16.5
Illinois Power Company	20	301	15.9
Union Electric Company	40	4	0.1
Kentucky-Indiana Pool		338	7.4
Kentucky Utilities Company	20		

Tennessee Valley Authority

TVA supplies power to both Oak Ridge and Paducah and has expressed a desire to reduce its Oak Ridge delivery by 50 Mw and its Paducah delivery by 65 Mw. Its reported reserves are 15.5 percent.

A 1527

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

bcc: GM (2)
AGMPP
OGC
CONS
RDT (3)
OR (2)
OC

JUN 24 1970

Mr. George E. Tomlinson
Acting Chief, Bureau of Power
Federal Power Commission
441 G Street, N. W.
Washington, D. C. 20426

Dear Mr. Tomlinson:

Enclosed are letters the AEC has received from Electric Energy, Inc. (EEI), Ohio Valley Electric Corporation (OVEC) and the Tennessee Valley Authority (TVA), requesting interim reductions in electric power delivered to our gaseous diffusion plants. These requests total 450 megawatts. The letters indicate that the power not delivered to the AEC could be used to assist the utilities, including the sponsoring utilities which constitute EEI and OVEC, to increase the reliability of their own and interconnected systems during the coming summer when critical shortages may develop in several areas.

You will recall that in his public announcement of May 5, 1970,* Mr. G. A. Lincoln said that "The Atomic Energy Commission will make arrangements to curtail production this summer at the gaseous diffusion plants, which use large amounts of electricity. This could release coal supplies and generating capacity which could be used to assist in meeting fuel shortages and peak loads of the consuming public in parts of the interconnected system." In a letter of May 5 to the AEC, Mr. Lincoln requested that we take the necessary steps to implement these measures. On May 22 we reported to him that we had had initial discussions with our power suppliers and found that arrangements on a mutually agreeable basis to reduce power were feasible. On the basis that AEC does not possess the expertise to assess the existence of a critical power shortage situation, we also stated that it was our understanding that the Executive Office would advise us of any emergency situations in which we were to implement the plans to release power to our suppliers. On June 10, we provided to the Federal Power Commission copies of letters from AEC to its power suppliers

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*Secretariat Note: See AEC 152/273, noted at Information Meeting 1038 on June 15, 1970.

JUN 24 1970

Mr. George E. Tomlinson

advising them of the amount of the load that AEC is prepared to drop at each of our gaseous diffusion plant installations.

The AEC is prepared to take appropriate action to make the 450 megawatts available for the purposes stated in Mr. Lincoln's public announcement upon the request of a power supplier once the appropriate Federal agency advises us that a severe shortage of reserve power generation does exist which could be alleviated by a reduction in AEC power usage. It is our understanding that the Federal Power Commission is prepared to provide advice concerning the existence of such a shortage of reserve generation creating a potential emergency situation, on the basis of which AEC can act to implement its power reduction plans. We are, accordingly, seeking such advice in connection with the requests included in the enclosed letters from EEI, OVEC and TVA.

It is our understanding that the financial arrangements under which electric power released by AEC would be used for other purposes would be subject to regulatory approval.

We have been advised by the Manager of our Oak Ridge Operations Office that TVA has now reported that suitable arrangements for transmission facilities to utilize 65 MW of power presently being delivered to our Paducah plant are feasible and, therefore, that the TVA request is for a total of 115 MW.

Sincerely,

R. E. Hollingsworth

General Manager

Enclosures:
1. EEI letter dated 6/18/70
2. TVA letter dated 6/19/70
3. OVEC letter dated 6/19/70

OFFICE ▶						
SURNAME ▶						
DATE ▶						

A 1529

ELECTRIC ENERGY, INC.
Post Office Box 105 -- Joppa, Illinois 09959

June 18, 1970

COPY

Mr. B. N. Stiller, Manager
Paducah Area
U. S. Atomic Energy Commission
Post Office Box 1213
Paducah, Kentucky 42001

Subject: AEC Load Reduction to Assist Utilities

Dear Mr. Stiller:

As a result of the AEC declaration to assist utilities to meet peak loads and due to contempleted generation deficiencies in the Chicago area and in the Kentucky-Indiana Pool, EEInc. is requesting a reduction of its 235 MW Paducah AEC load to zero.

This reduction will be for the months of July and August, with an option to include the month of September.

Operating personnel have tentatively arranged for the load drop to commence at 12:01 A.M., July 1, 1970, at a rate of 10 MW per hour and if an emergency exists, the rate will be 20 MW per hour, load pickup will start at 12:01 A.M. on the first day of the month that the load will be re-established, at a rate of 10 MW per hour.

The responsibility of AEC to EEInc. under the Power Contract will not apply for the period of curtailment. Any energy consumed by AEC within the period of curtailment, due to the gradual load reduction and increase will be billed to AEC. AEC will not be charged for any demand cost during the curtailment period, but will be charged for the full demand cost from the time the load has been completely re-established.

The above arrangements and cost distributions have been discussed with all parties involved. We will attempt to resolve any inequities which any of the participants feel exists due to this load curtailment. All of the Electric Energy, Inc. Sponsors concur with this load curtailment and the power allocation to the above deficient areas. We are expressing our appreciation to AEC for their cooperation in making this block of power available to our industry in order to prevent chaos caused by power black-outs.

Yours very truly,

COPY

J. G. Koopman
President

A 1530

TENNESSEE VALLEY AUTHORITY
Chattanooga, Tennessee

June 19, 1970

COPY

Mr. S. R. Sapirie, Manager
Oak Ridge Operations
U. S. Atomic Energy Commission
Post Office Box B
Oak Ridge Tennessee 37830

Dear Sam:

Enclosed is a copy of the letter dated June 15, 1970, from Robert C. Price, Regional Engineer of the Federal Power Commission in Atlanta, Georgia, that we discussed in our telephone conversation this afternoon.

It is understood that arrangements have already been made for AEC to reduce its load at Paducah by 235 megawatts, with this amount being released to Electric Energy, Inc., with the provision that suitable transmission connections can be arranged.

As we discussed, TVA would like to (1) reduce the amount of load which it supplies to Oak Ridge by 50 megawatts, and (2) reduce the amount of load which it supplies to Paducah by 65 megawatts provided that suitable arrangements can be made for the transmission of facilities that will be involved; and we hope to have this point resolved by Monday.

In our discussion it was noted that the proposed 115-megawatt total reduction in the amount of load being supplied by TVA will permit TVA to increase the reliability of its system and also increase the amount of support that it would be able to give to its neighbors and hence improve their reliability.

It is expected that the load reduction totaling 115 megawatts will be made as soon as our operating people can work out the details, which may be within the next few days, and the reduction will continue through August 1970.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

James E. Watson
Manager of Power

Enclosure

COPY

A 1531

FEDERAL POWER COMMISSION
REGIONAL OFFICE
730 Peachtree Building
Atlanta, Georgia 30308

COPY

June 15, 1970

Mr. James E. Watson
Manager of Power
Tennessee Valley Authority
Chattanooga, Tennessee 37401

Dear Mr. Watson:

In your absence last Thursday, June 11, Mr. Fishborne conferred by telephone with Mr. Bardeshaw of your staff concerning the release of generating capacity at the AEC gaseous diffusion plants. This letter confirms that conversation.

At the request of the Executive Office of the President, referred to in the May 5, 1970, statement by George A. Lincoln, Director of the Office of Emergency Preparedness, the Atomic Energy Commission has made arrangements to reduce the total power load at the AEC gaseous diffusion plants by a total of 450 megawatts to assist electric utilities facing tight power-supply situations this summer. I understand that the total power load can be reduced by 300 megawatts at the Paducah plant, by 100 megawatts at the Portsmouth plant, and by 50 megawatts at the Oak Ridge plant.

Our analysis of this summer's load-supply situation indicates potential insufficient reserve capacity on your system. You may, therefore, be interested in purchasing supplemental power from utilities supplying power to the AEC gaseous diffusion plants.

Please let me know of any plans or desires you may have to obtain emergency assistance from this source.

Very truly yours,

Robert G. Price
Regional Engineer

COPY

A 1532

OHIO VALLEY ELECTRIC CORPORATION

June 19, 1970 COPY

Mr. S. R. Sapirie
Manager
Oak Ridge Operations
Atomic Energy Commission
P. O. Box B
Oak Ridge, Tennessee 37830

Dear Sam:

We very much appreciate AEC's offer, as stated in your letter of June 3, 1970, to assist the electric power industry to the maximum extent practicable in meeting the tight power supply situation anticipated in some areas during the coming summer. This offer, we understand, is in response to a request of the Executive Office of the President referred to in the statement by the Honorable George A. Lincoln, Director of the Office of Emergency Preparedness, dated May 5, 1970. We further understand that AEC can reduce its demand requirements to a minimum level of 400 MW at the Portsmouth diffusion plant, thus making 100 MW available to assist the industry, and that it will take 10 hours to make this reduction in an orderly manner.

It is reported that a tight power supply situation may well develop this coming summer on the systems of some electric utilities with which Sponsoring Companies of OVEC are strongly interconnected, although it is not now expected that a tight capacity situation of emergency proportions will develop in the areas served by the Sponsoring Companies themselves. For example, the May 5 statement notes that the Pennsylvania-New Jersey-Maryland region has an insufficient reserve capacity for the summer. In addition, the Chicago area may need assistance from utilities in the mid-west as the result of such occurences as the unexpected shutdown of the 809-MW Dresden 2 nuclear unit last week.

After reviewing the matter from the viewpoint of how the 100 MW of capacity can best be utilized in order to meet the needs of the customers of electric utility industry generally, we believe that their interests can best be served by the Sponsoring Companies utilizing the 100 MW to support through their interconnections areas of tight supply. Therefore, since the need for emergency power may develop within a matter of seconds

COPY

or minutes, and since AEC will need 10 hours to make an orderly reduction of 100 MW, it is suggested that AEC operate its facilities during the July 1 - September 30, 1970, summer season in such a way as to make this capacity available on a continual basis. We believe this is the practical way to assist effectively those areas in short supply.

Permit me, on behalf of those others in the industry who may be sorely afflicted during the ensuing summer months, to express their appreciation for this offer of assistance.

Sincerely yours,

Donald C. Cook

COPY

A 1534

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

June 26, 1970

Ohio Valley Electric Corporation
c/o American Electric Power
  Service Corporation
2 Broadway
New York, New York 10004

Attention: Mr. Donald Cook
  President

Subject: AEC POWER AGREEMENT - CONTRACT NO. AT-(40-1)-1530

Gentlemen:

This will confirm the understanding reached in response to a request by the Executive Office of the President referred to in a statement of the Honorable George A. Lincoln, Director of the Office of Emergency Preparedness, dated May 5, 1970, that AEC will make arrangements to curtail production at the Gaseous Diffusion Plants this summer, thus releasing coal supplies and generating capacity during the summer. Therefore it is agreed that AEC will so operate the facilities of AEC that during the period between July 2, 1970, and September 29, 1970, inclusive, the AEC demand will not exceed 400 mw, and that OVEC, for billing and all other purposes under the above AEC power agreement, hereby waives any requirement that, during the period beginning July 1, 1970, and ending September 30, 1970, the AEC contract demand be 500 mw rather than 400 mw.

Such operation by AEC and this waiver by OVEC is without prejudice to the rights of either party at any future time to require that scheduling of AEC's prospective demand be made only pursuant to specified procedures for changing the AEC contract demand under the AEC power agreement or by formal modification to the AEC power agreement.

Px 6

A 1535

If this letter meets with your approval, kindly so indicate by signing in the appropriate space below and returning two signed copies to this office.

Very truly yours,

UNITED STATES OF AMERICA

BY: UNITED STATES ATOMIC ENERGY
COMMISSION

BY: /s/ S. R. Sapirie

TITLE: ____________________

MC:JCW

ACCEPTED:

OHIO VALLEY ELECTRIC CORPORATION

BY: ____________________

TITLE: ____________________

DATE: ____________________

A 1536

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

June 26, 1970

Electric Energy, Inc.
Post Office Box 165
Joppa, Illinois 62953

Attention: Mr. J. G. Koopman
President

Subject: AEC POWER AGREEMENT - CONTRACT NO. AT-(40-1)-1312

Gentlemen:

Reference is made to your letter dated June 18, 1970, requesting the short-term release to EEI of the AEC contract demand under the subject power agreement.

The AEC hereby agrees to so operate the facilities of AEC that during the period beginning July 1, 1970 and ending August 31, 1970, the AEC shall not require the 235 mw AEC contract demand and waives any requirement that such contract demand be supplied or made available by EEI. In addition, the term of such waiver may be extended, at the option of EEI, for an additional period not to extend past September 30, 1970, upon notification to AEC not later than August 26, 1970. Beginning at 12:01 a.m. CDT on July 1, 1970, the AEC contract demand shall be decreased at the rate of 10 mw per hour until the 235 mw reduction has been accomplished. The AEC contract demand shall be restored at the rate of 10 mw per hour beginning at 12:01 a.m. CDT on the day following the last day of the waiver period. It is understood that, for billing and other purposes under the above AEC power agreement, during the period of this waiver AEC shall be deemed to have no contract demand; however, AEC shall be responsible for the energy charge for power delivered on July 1, 1970. AEC shall be responsible for the energy charge on the day the AEC contract demand is being restored (September 1, 1970, or such other date as may result from EEI's exercising the option referred to above) but shall not be responsible for the demand charge on such day. With regard to Sections 3.03-A. Adjustments for Extensions and Improvements and 3.04-A. Reimbursement for Cost of Replacements of the subject power agreement, elimination of the AEC contract demand for the waiver period shall be recognized and the amortization and reimbursement costs for the account of the AEC under such sections shall be appropriately prorated.

PX 7

The waiver by AEC of the contract demand is being made because of the need by EEI to have additional capacity available for reassignment in an attempt to meet the anticipated heavy demand for electricity during the waiver period. This waiver is in implementation of the announcement on May 5, 1970, by the Office of Emergency Preparedness, Executive Office of the President, identifying the curtailment of power usage at the AEC's gaseous diffusion plants as one method of assisting in the effort to meet the expected heavy demand for electric energy during the summer months and thus avoiding a possible shortage of power.

If this letter meets with your approval, please sign in the appropriate space below and return two signed copies to this office.

Sincerely,

UNITED STATES OF AMERICA

BY: UNITED STATES ATOMIC ENERGY
COMMISSION

BY: ______________________
(Contracting Officer)

ACCEPTED:

ELECTRIC ENERGY, INC.

BY: ______________________

A 1538

TENNESSEE VALLEY AUTHORITY
KNOXVILLE, TENNESSEE 3[illegible]2

June 29, 1970

TV-14266A
Supp. 16

Mr. S. R. Sapirie
Manager, Oak Ridge Operations
U. S. Atomic Energy Commission
Oak Ridge, Tennessee 37830

Dear Mr. Sapirie:

This will confirm the understanding reached between representatives of AEC and TVA with respect to amending the Paducah power contract dated March 26, 1953, AT-(401)-1629, TV-14266A, as amended (hereinafter referred to as the "1953 Contract"), to reduce the contract demand for the months of July and August 1970.

Beginning at 11:30 p.m. CDT on July 1, 1970, the contract demand under section 2 of the 1953 Contract shall be reduced from 765 mw to 700 mw at the rate of 10 mw per hour and shall remain at the level of 700 mw until 11:30 p.m. CDT on September 1, 1970, when the contract demand shall be restored at the rate of 10 mw per hour to 765 mw; provided however, that AEC may, at its option, notify TVA that the restoration to 765 mw shall begin at 12:01 a.m. instead of 11:30 p.m. on September 1, 1970.

Notwithstanding any provision of the 1953 Contract which might be construed to the contrary, for the 24-consecutive-hour periods beginning when the contract demand is being reduced from 765 mw to 700 mw and is being restored to 765 mw, AEC shall be responsible for the normal energy charge for all energy used and for a normal capacity charge for 700 mw.

It is understood that TVA's provisional bills pursuant to section 11 of the 1953 Contract shall appropriately reflect these reductions in availability.

This reduction in contract demand is being made because of TVA's need to have additional capacity available for the anticipated heavy demand for electricity during the period. This arrangement is an implementation of the announcement on May 5, 1970, by the Office of Emergency Preparedness, Executive Office of the President, identifying the curtailment of power usage at the AEC's gaseous diffusion plants as one method of assisting in the effort to meet the expected heavy demand for electric energy during the summer months and thus avoid a possible shortage of power.

A 1539

If this letter is acceptable to AEC, please sign in the appropriate space below and return two copies to TVA.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Lynn Seeber

Lynn Seeber
General Manager

EHW
LAW

Accepted and approved as of
the date first above written.

U. S. ATOMIC ENERGY COMMISSION

By S.R. Sapirie
(Title)

TENNESSEE VALLEY AUTHORITY
KNOXVILLE. TENNESSEE 37902

June 29, 1970

TV-14265A
Supp. 12

Mr. S. R. Sapirie
Manager, Oak Ridge Operations
U. S. Atomic Energy Commission
Oak Ridge, Tennessee 37830

Dear Mr. Sapirie:

This will confirm the understanding reached between representatives of AEC and TVA with respect to amending the Oak Ridge power contract dated March 26, 1953, AT-(401)-1628, TV-14265A, as amended (hereinafter referred to as the "1953 Contract"), to reduce the contract demand for the months of July and August 1970.

Beginning at 12:01 a.m. CDT on July 1, 1970, the contract demand under section 2 of the 1953 Contract shall be reduced from 575 mw to 525 mw at the rate of 10 mw per hour and shall remain at the level of 525 mw until 12:01 a.m. CDT on September 1, 1970, when the contract demand shall be restored at the rate of 10 mw per hour to 575 mw.

Notwithstanding any provision of the 1953 Contract which might be construed to the contrary, for the 24-consecutive-hour periods beginning when the contract demand is being reduced from 575 mw to 525 mw and is being restored to 575 mw, AEC shall be responsible for the normal energy charge for all energy used and for a normal capacity charge for 525 mw.

It is understood that TVA's provisional bills pursuant to section 11 of the 1953 Contract shall appropriately reflect these reductions in availability.

This reduction in contract demand is being made because of TVA's need to have additional capacity available for the anticipated heavy demand for electricity during the period. This arrangement is an implementation of the announcement on May 5, 1970, by the Office of Emergency Preparedness, Executive Office of the President, identifying the curtailment of power usage at the AEC's gaseous diffusion plants as one method of assisting in the effort to meet the expected

R062670

heavy demand for electric energy during the summer months and thus avoid a possible shortage of power.

If this letter is acceptable to AEC, please sign in the appropriate space below and return two copies to TVA.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Lynn Seeber
Lynn Seeber
General Manager SHB
LAW

Accepted and approved as of
the date first above written.

U. S. ATOMIC ENERGY COMMISSION

By S. R. Sapirie
(Title)

A 1542

JUL 2 1970

Honorable George A. Lincoln
Director
Office of Emergency Preparedness
Executive Office of the President
The White House

Dear Mr. Lincoln:

This is to advise you that arrangements have been entered into with the utilities supplying electric power to the gaseous diffusion plants to reduce the delivery of electric power by 450 mw during the summer months.

This implements your May 5, 1970 announcement which stated, "The Atomic Energy Commission will make arrangements to curtail production this summer at the gaseous diffusion plants, which use large amounts of electricity. This could release coal supplies and generating capacity which could be used to assist in meeting fuel shortages and peak loads of the consuming public in parts of the interconnected system." Following receipt of this announcement, AEC advised each of its electric utility suppliers to the gaseous diffusion plants that AEC was willing to assist the electric power industry to the maximum extent practicable in meeting the tight power supply situation anticipated in some areas during the coming summer. We stated that we were willing to make available 50 mw at our Oak Ridge plant, 300 mw at our Paducah plant, and 100 mw at our Portsmouth plant.

We also secured the advice of the Federal Power Commission. Their regional engineers in Chicago, Atlanta, and New York made contact with all the principal systems with apparent reserve deficiencies in their areas to assure that concerned utilities were informed about the availability of power through curtailment of these AEC loads.

Both of the private suppliers, Ohio Valley Electric Corporation (OVEC) and Electric Energy, Inc. (EEI), have responded by requesting that power be released for use in the systems of their sponsoring companies and their neighbors. Tennessee Valley Authority (TVA) has also requested we make available power for use in its

PX 10

OFFICE ▶						
SURNAME ▶						
DATE ▶						

Form AEC-318 (Rev. 9-53) U.S. GOVERNMENT PRINTING OFFICE, 19[illegible]

A 1543

[illegible] system. TVA [illegible] to the Ridge plant have been reduced by 50 mw for the period July 1 through August 31, and at Paducah for the period beginning on July 2 by [illegible]5 mw. Beginning on July 1 and continuing through August, ESI deliveries are being reduced by 255 mw. ESI also has the option to include the month of September. OVEC deliveries are being reduced by 100 mw at Portsmouth during the period of July 1 through September 30. The contracts with the power suppliers are being modified to provide for these interim reductions and corresponding adjustment in contract demand charges.

Each of the suppliers has been advised by letter of our understanding that the power we are releasing will, in accordance with your May 5, 1970 announcement, be used, as is feasible, to assist in alleviating power shortages of the consuming public.

Sincerely,

E. J. BLOCH

Acting General Manager

cc: AGMO
AGMPP
P
OGC
RDT
OR
OC
CHMN (2)
COMM (4)
SECY (2)
OCR (2)
GM (2)

OGC	PROD
Ferguson	
Minsch	
6/29/70	

OFFICE ▶	CONS	CONS	AGMPP	AGMO	EAGM	AGM	DGM	GM
SURNAME ▶	LWMeyer:mb	JADerry						
DATE ▶	6/29/70	6/ /70	7/1	7/1/70	7/1		7/1	

A 1544

ESTIMATED COSTS AT TWO POWER LEVELS
and
ESTIMATED LOSS DUE TO POWER REDUCTIONS

	Power Levels			
	1,550 MW		1,350 MW	
	Unit Cost per SWU	Total Cost thousands of dollars	Unit Cost per SWU	Total Cost thousands of dollars
Estimated Unit Cost at Two Power Levels - 1st Qtr FY 1971				
Power	$12.35	$15,048	$12.66	$13,128
Operating costs & maintenance	7.27	8,859	8.54	8,859
Depreciation	3.97	4,831	4.56	4,725
Total Production Cost	23.59	28,738	25.76	26,712
Other fund costs	3.12	3,800	3.66	3,800
Deprec. & interest on investment	5.85	7,120	6.39	6,618
Total Costs	$32.56	$39,658	$35.81	$37,130
Thousands of Separative Work Units		1,218		1,037
PUI		8.54		8.35

	Power Levels			
	1,550 MW		1,350 MW	
	Fund Cost	Total Cost	Fund Cost	Total Cost
Estimated Loss due to Reduction of Power Levels by 200 megawatts for the Benefit of Consolidated Edison assuming a 92 day reduction				
Production - thousands of SWU	1,218	1,218	1,037	1,037
Estimated unit cost of production				
Power	$12.35	$12.35	$12.66	$12.66
Other operating costs & maintenance	7.27	7.27	8.54	8.54
Depreciation	xx	3.97	xx	4.56
Other fund costs	3.12	3.12	3.66	3.66
Other deprec. & interest on invest.	xx	5.85	xx	6.39
Totals	$22.74	$32.56	$24.86	$35.81
Increased unit cost			$ 2.12	$ 3.25
Net loss - 1,037 M SWU units X increased unit cost			$2,198,440	$3,370,250
Blending loss - 10% of power cost decrease			192,000	192,000
Total Loss			$2,390,440	$3,562,250
Total MWH released			441,600	441,600
Unit charge per MWH released			$5.41	$8.07

Cost Analysis & Eval. Branch
Office of the Controller
July 28, 1970

Ex ~~3~~ 13 50

A 1545

JUL 3 0 1970

S

P

G. F. QUINN, AGMP
JOHN P. ABBADESSA, CONTROLLER

S. R. SAPIRIE, OAK RIDGE, TENN.

BASED ON OUR DISCUSSIONS WITH E. J. BLOCH ON JULY 28, 1970, YOU ARE AUTHORIZED AND REQUESTED TO INITIATE DISCUSSIONS WITH SUPPLIERS TO RECOVER OUR ADDED FUND COSTS RESULTING FROM THE RELEASE OF POWER TO CONSOLIDATED EDISON. THE CALCULATIONS OUTLINED BELOW WERE USED IN OUR DISCUSSIONS IN ARRIVING AT THE 5.41 MILL FIGURE TO BE USED AS A BASIS FOR NEGOTIATION. YOU WILL NOTE THE COST OF THE RELEASED POWER, ON A FULL COST BASIS INCLUDING DEPRECIATION AND INTEREST, IS 8.07 MILLS. REF. OCAc:TAH.

bcc: JPAbbadessa
GFQuinn
✓ FPBaranowski
WECampbell
Acctg R.File

PI 3364

Fi2-3a

T.A.Hart
Ext. 4571
B-227

Cost Analysis & Eval. Br.		Asst Cntrlr for Acctg	Controller	AGMP	Prod. Di
TAHart:cc	EAShepherd	WECampbell	JPAbbadessa	GFQuinn	FPBarano
7/29/70					

A 1546

.200

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

July 30, 1970

Ohio Valley Electric Corporation
c/o American Electric Power Service
Corporation
2 Broadway
New York, New York 10004

Attention: Mr. Donald C. Cook, President

Subject: AEC POWER AGREEMENT - CONTRACT NO. AT-(40-1)-1530

Gentlemen:

By letter agreement dated January 16, 1970, we confirmed our understanding that during the period between January 1, 1971, and June 30, 1971, inclusive, the AEC will so operate the facilities of AEC that the AEC demand will not exceed 500 mw and that, at the request of AEC, OVEC, for billing and all other purposes under the above AEC Power Agreement, waived any requirements, during such period, the AEC contract demand be 700 mw rather than 500 mw. By further letter agreement, dated June 26, 1970, we confirmed our further understanding that during the period between July 2, 1970, and September 29, 1970, inclusive, AEC will so operate the facilities of AEC that the AEC demand will not exceed 400 mw and that OVEC, for billing and all other purposes under the above AEC Power Agreement, waived any requirement that during such period, the AEC contract demand be 500 mw rather than 400 mw. Under such circumstances AEC is, under said letter agreements, obliged so to operate the facilities of AEC that during the period between July 2, 1970, and September 29, 1970, the AEC demand will not exceed 400 mw; and during the period between September 30, 1970, and June 30, 1971, the AEC demand will not exceed 500 mw. The above respective maximum demands of AEC during the times involved shall be, and are herein called, the Applicable AEC Demand.

This will confirm the further understanding reached between AEC and OVEC, in response to a request by the Office of the President of the United States that AEC release electric power to assist Consolidated Edison Company of New York to meet its requirements for electric power following the recent failure of 1,000 mw steam electric generating unit of Consolidated Edison Company of New York, that AEC will (during the period between July 27, 1970, and the date on which the first of the following shall occur: (i) October 1, 1970, (ii) the date on which OVEC notifies AEC that such electric power is no longer needed by Consolidated Edison Company of New York and (iii) the date when AEC shall advise OVEC in

CERTIFIED A TRUE COPY
BY

PX 15

A 1547

writing, by telegram or by telephone of its election to terminate such period) so operate the facilities of AEC that the AEC demand will not exceed (a) the Applicable AEC Demand, minus (b) 50 mw, and OVEC, for billing and all other purposes under the above AEC Power Agreement, hereby waives any requirement that, during such period, the AEC contract demand be the Applicable AEC Demand rather than the Applicable AEC Demand less 50 mw. It is further understood by the AEC and OVEC that (1) OVEC will effect arrangements under which electric power equal in amount to 50 mw, less transmission losses, will be made available, through one or more of the systems of the Sponsoring Companies or otherwise, to Consolidated Edison Company of New York during the above period and (2) since AEC will incur costs in connection with this further reduction in the AEC demand, OVEC will arrange, through the systems supplying capacity in such amount to Consolidated Edison Company of New York, for the payment by Consolidated Edison Company of New York to AEC through OVEC of a surcharge in an amount equal to the product of 5.41 mils times 1,200,000 for each of the days during the above period when the Applicable AEC Demand is so reduced by 50 mw. This surcharge shall be credited against AEC's monthly power bills.

Such operation by AEC and this further waiver by OVEC is without prejudice to the rights of either party at any future time to require that scheduling of AEC's prospective demands be made only pursuant to specified procedures for decreasing the AEC contract demand under the AEC Power Agreement or by a formal modification to the AEC Power Agreement.

If this letter meets with your approval, kindly so indicate by signing in the appropriate space below and return two signed copies to this office.

Sincerely,

UNITED STATES OF AMERICA

BY: UNITED STATES ATOMIC ENERGY COMMISSION

BY: ____________________
(Contracting Officer)

MC:JCW

ACCEPTED:

DATE: August 7, 1970

OHIO VALLEY ELECTRIC CORPORATION

BY: /s/ Donald C. Cook

TITLE: President

A 1548

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

August 3, 1970

TV-14266A
Supp. 17

Tennessee Valley Authority
Chattanooga, Tennessee 37401

Attention: Mr. James E. Watson
Manager of Power

Dear Mr. Watson:

This will confirm the understanding reached between representatives of AEC and TVA with respect to amending further the Paducah power contract dated March 26, 1953, AT-(40-1)-1629, TV-14266A, as amended (hereinafter referred to as the "1953 Contract"), to reduce temporarily the contract demand. The reduction in contract demand hereunder is made in response to a request by the Office of the President of the United States that AEC reduce its use of electrical power at its Paducah Plant and release the electrical power to Consolidated Edison Company of New York ("Con. Ed.") to meet its requirements for electrical power following the recent failure of a 1,000 mw steam electrical generating unit of Con. Ed.

Beginning at 9:00 p.m., EDT, on July 26, 1970, the contract demand otherwise applicable under Section 2 of the 1953 Contract shall be reduced by 100 mw at the rate of 10 mw per hour and, unless a longer period is mutually agreed upon, shall remain at a level 100 mw below such contract demand until the earliest of the following: (a) October 1, 1970, (b) the date on which TVA notifies AEC that such electrical power is no longer needed by Con. Ed., or (c) the date when AEC shall advise TVA of its election to terminate such period. At the end of the reduction period the contract demand so reduced shall be increased by 100 mw at the rate of 10 mw per hour. It is understood that since AEC will incur costs in connection with this reduction in contract demand, TVA will arrange through the electrical systems supplying the power to Con. Ed. for the payment by Con. Ed. to AEC through TVA of an amount determined by applying 5.41 mills per kwh to the energy determined by applying 100% load factor to the demand released by AEC hereunder. Such payment through TVA to AEC shall be made as a credit against TVA's monthly power bills to AEC; Provided, however, that TVA will have no obligation to make such payment to AEC until it is made to TVA. It is understood that TVA's provisional bills

PX 16

CERTIFIED A TRUE COPY
BY Alice Brown

A 1549

pursuant to Section 11 of the 1953 Contract shall appropriately reflect these reductions in availability and the above credit to AEC for losses in efficiency.

If this letter is acceptable to TVA, please sign in the appropriate space below and return two copies to AEC.

Sincerely,

UNITED STATES ATOMIC ENERGY
COMMISSION

BY:

TITLE: Manager, Oak Ridge Operations

MC:JCW

ACCEPTED AND APPROVED
AS OF DATE HEREOF:

TENNESSEE VALLEY AUTHORITY

BY: Lynn Seeber

TITLE: General Manager

LEW
LAW

Approved by TVA
Board of Directors
AUG 13 1970
M.E.
ASSISTANT SECRETARY

A 1550

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

August 3, 1970

TV-14265A
Supp. 13

Tennessee Valley Authority
Chattanooga, Tennessee 37401

Attention: Mr. James E. Watson
Manager of Power

Dear Mr. Watson:

This will confirm the understanding reached between representatives of AEC and TVA with respect to amending further the Oak Ridge power contract dated March 26, 1953, AT-(40-1)-1628, TV-14265A, as amended (hereinafter referred to as the "1953 Contract"), to reduce temporarily the contract demand. The reduction in contract demand hereunder is made in response to a request by the Office of the President of the United States that AEC reduce its use of electrical power at its Oak Ridge Plant and release the electrical power to Consolidated Edison Company of New York ("Con. Ed.") to meet its requirements for electrical power following the recent failure of a 1,000 mw steam electrical generating unit of Con. Ed.

Beginning at 2:00 a.m., EDT, on July 27, 1970, the contract demand otherwise applicable under Section 2 of the 1953 Contract shall be reduced by 50 mw at the rate of 10 mw per hour and, unless a longer period is mutually agreed upon, shall remain at a level 50 mw below such contract demand until the earliest of the following: (a) October 1, 1970, (b) the date on which TVA notifies AEC that such electrical power is no longer needed by Con. Ed., or (c) the date when AEC shall advise TVA of its election to terminate such period. At the end of the reduction period the contract demand so reduced shall be increased by 50 mw at the rate of 10 mw per hour. It is understood that since AEC will incur costs in connection with this reduction in contract demand, TVA will arrange through the electrical systems supplying the power to Con. Ed. for the payment by Con. Ed. to AEC through TVA of an amount determined by applying 5.41 mills per kwh to the energy determined by applying 100% load factor to the demand released by AEC hereunder. Such payment through TVA to AEC shall be made as a credit against TVA's monthly power bills to AEC; Provided, however, that TVA will have no obligation to make such payment to AEC until it is made to TVA. It is understood that TVA's provisional bills pursuant to

CERTIFIED A TRUE COPY
BY Alice Brown

PX 17

A 1551

Section 11 of the 1953 Contract shall appropriately reflect these reductions in availability and the above credit to AEC for losses in efficiency.

If this letter is acceptable to TVA, please sign in the appropriate space below and return two copies to AEC.

Sincerely,

UNITED STATES ATOMIC ENERGY
COMMISSION

BY: S. R. Sapirie

TITLE: Manager, Oak Ridge Operations

MC:JCW

ACCEPTED AND APPROVED
AS OF DATE HEREOF:

TENNESSEE VALLEY AUTHORITY

BY: Lynn Seeber

TITLE: General Manager

LEW
LAW

Approved by TVA
Board of Directors
AUG 13 1970
M. E.
ASSISTANT SECRETARY

A 1552

67

x

USAEC
J. P. ABBADESSA, CONTROLLER -5
G. F. QUINN, AGMDP
GERMANTOWN, MD.

8/11/70

S. R. SAPIRIE, MANAGER
USAEC
OAK RIDGE, TENNESSEE

AFTER DISCUSSING WITH THE COMMISSION THE BASIS FOR THE PREMIUM OF 5.41 MILLS/KW-HR. IMPOSED IN EFFECTING THE RECENT 200 MEGAWATT POWER REDUCTION TO ASSIST CONSOLIDATED EDISON, THE COMMISSION REQUESTED THAT THE STAFF ATTEMPT TO NEGOTIATE AN APPROPRIATE PREMIUM INTO THE AGREEMENTS UNDER WHICH THE 450 MEGAWATTS WERE EARLIER REDUCED. THE CALCULATIONS OUTLINED BELOW WERE DEVELOPED, LEADING TO THE DETERMINATION OF 3.74 MILLS/KW-HR. AS THE APPROPRIATE VALUE FOR THE PREMIUM WHICH WE WOULD ATTEMPT TO RECOVER ON THE 450 MW. YOU ARE REQUESTED TO UNDERTAKE SUCH NEGOTIATIONS AS SOON AS PRACTICABLE. IT IS RECOGNIZED THAT IT MAY BE IMPRACTICAL FOR THE PREMIUM TO BE MADE RETROACTIVE. /END/

bcc: OC
P

PX 19

GFQuinn, AGMDP
X-3311

OFFICE ▸	AGMDP	OC				
SURNAME ▸	GFQuinn					
DATE ▸	8/11/70	8/11/70				

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1968 O-320-5[illegible]

Charles F. Luce
Chairman of the Board

A 1553

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N.Y. 10003
Telephone (212) 460 7003

August 20, 1970

Mr. George F. Quinn
Assistant General Manager
for Development and Production
United States Atomic Energy Commission
Washington, D.C. 20545

Dear George:

This will confirm our readiness to discuss with you and members of the Commission the proper level of billing for the 200 MW released by AEC for use in New York City and Westchester County during this summer's power emergency. As I said in our telephone conversation earlier today, our principal concern is that the Company and its customers be treated equally and not discriminated against in the pricing of this power. Since the 200 MW were made available as part of a plan announced by the Office of Emergency Preparedness on May 5, we strongly believe that the price basis for the 200 MW which we received should be the same as the 450 MW released earlier to other utilities under the same program.

We appreciate the information which you gave Bert Schwartz last week as to the calculation of the surcharge which it has been proposed to assess to Con Edison. I have asked Bert to be in touch with you to obtain any further information which he feels will be necessary to a full consideration of this matter when we meet with you and other representatives of AEC. I am tentatively reserving Tuesday afternoon, September 1,

Cy to Rieser/Baranowski
J. A. [illegible]
9/1/70

PX 20

A 1554

and Friday morning, September 4, for our meeting in Washington.

May I say again, as I did in our telephone conversation earlier today, that despite our questions about the basis for the proposed charges for 200 MW, we deeply appreciate the cooperation of AEC along with TVA and AEP in making this power available at the time of our City's critical need.

Sincerely,

Charles

Charles F. Luce

Copy to Mr. Donald C. Cook
Mr. S. David Freeman
General George A. Lincoln
Mr. James E. Watson.
Chairman Joseph C. Swidler

A 1555

August 21, 1970

Mr. Charles F. Luce
Chairman of the Board
Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Dear Chuck:

Pursuant to our telephone conversation on August 20, I have arranged for a meeting to discuss the matter of the surcharge on the 200 megawatts currently being diverted to Consolidated Edison from our gaseous diffusion plants. The meeting has been arranged for 2:00 p.m. on September 1 at our Germantown office. I expect that a Commissioner and the General Manager will attend along with other involved AEC staff.

I would appreciate your confirming the suitability of this time as well as the names of any Consolidated Edison personnel who will accompany you.

Sincerely,

(Signed) G. F. Quinn

George F. Quinn
Assistant General Manager
for Development and Production

PX 21

OFFICE ▶	AGMDP					
SURNAME ▶	GFQuinn/hm-tf					
DATE ▶	8/21/70					

AEC-318 (Rev. 9-53) AECM 0240

☆ U. S. GOVERNMENT PRINTING OFFICE: 1969 O-322-907

A 1558

X

USAEC
G. F. QUINN, ASST. GEN. MGR. FOR
DEVELOPMENT & PRODUCTION
GERMANTOWN, MD.

8/28/70

CHARLES F. LUCE
CHAIRMAN OF THE BOARD
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
4 IRVING PLACE
NEW YORK, NEW YORK

IN A LETTER DATED AUGUST 19, 1970, ADDRESSED TO THE AEC DEPUTY MANAGER AT OAK RIDGE FROM DONALD C. COOK, PRESIDENT, OHIO VALLEY ELECTRIC CORP., CONCERNING THE 5.41 MILLS PER KILOWATT HOUR SURCHARGE ON POWER MADE AVAILABLE TO CONSOLIDATED EDISON CONTAINS THE FOLLOWING QUOTATION: "AS I INFORMED YOU BY TELEPHONE YESTERDAY, L. H. RODDIS, JR., PRESIDENT OF CONSOLIDATED EDISON COMPANY, HAS ASSERTED TO US THAT: 1. CONSOLIDATED EDISON DID NOT INITIATE THE REQUEST FOR THE POWER; 2. CONSOLIDATED EDISON HAD NO PRIOR KNOWLEDGE OF THE INTENT OF AEC TO IMPOSE A SURCHARGE, NEVER AGREED TO PAY IT, AND DOES NOT BELIEVE IT IS OBLIGATED TO PAY IT." /PARA/ THE COMMISSION IS SERIOUSLY CONCERNED AT THESE ASSERTIONS ATTRIBUTED TO MR. RODDIS SINCE OUR UNDERSTANDINGS AND RECORDS OF CONVERSATIONS MAKE VERY CLEAR THAT CON/ED REQUESTED THE POWER, THAT AEC REDUCED ITS POWER ONLY ON THE BASIS OF THE CON/ED REQUEST, AND THAT CON/ED HAD PRIOR KNOWLEDGE OF THE INTENT OF AEC TO IMPOSE A SURCHARGE. WE INTEND TO DISCUSS THESE ASSERTIONS WITH YOU DURING OUR SEPT. 1 MEETING IN ORDER TO ASSURE THAT THE RECORD ON THESE POINTS IS SET STRAIGHT TO ALL PARTIES CONCERNED. /END/

PX 23

bcc: OFFICE ▶	Manager, ORO	- GM - OC -	GC - Rubin			
G. F. Quinn, AGMDP 8/28/70 SURNAME ▶						
X-3311 DATE ▶						

A 1557

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

[illegible] 1970

Mr. Charles F. Luce
Chairman of the Board
Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Dear Mr. Luce:

Since our discussions with you on September 1 concerning the matter of the surcharge established by AEC to be applied to the 200 megawatts of electricity now being diverted from the AEC gaseous diffusion plants to Consolidated Edison, we have given further study to the question and wish to provide you herein with our conclusions.

There are two basic issues involved: (1) whether a surcharge is appropriate in this case in the light of the understandings of the parties as to the arrangements under which the AEC power was made available; and (2) the magnitude of any surcharge deemed to be appropriate. It is our understanding, as a result of our discussions with you, that the Consolidated Edison position relates primarily to the first of these issues and is based on the fact that no surcharge is being paid on the earlier release of 450 megawatts of AEC power.

It is our conclusion that whether or not a surcharge is paid on the 450 megawatt reduction is not relevant to the issue of a surcharge on the 200 megawatt reduction, for the following reasons. Following the execution of the agreements with our power suppliers for the 450 megawatt reduction, which agreements contained no provision for a surcharge, our further study indicated that the reduction had the effect of penalizing the unit cost of the remaining separative work being produced by AEC. This led to the establishment of the policy, prior to the time when the Consolidated Edison emergency condition developed, that any future reductions of this type must include a surcharge in order to avoid cost penalties on our remaining production. In addition, and prior to Consolidated Edison's decision to request the AEC power, Consolidated Edison had been put on notice that the terms and conditions under which AEC was offering to make power available included a surcharge. This prior notice was provided to you during our telephone conversation on July 24, 1970. We also

PX 25

understand that Consolidated Edison was advised by representatives of our power suppliers who are involved in this reduction, the Ohio Valley [illegible] that there would be an AEC surcharge of between 3 and 7 mills per kilowatt hour.

In the same July 24 telephone conversation, you indicated that Consolidated Edison would expect, if it obtained power as a result of a further AEC reduction, that the AEC power would be made available under the same general terms and conditions as applied to the 450 megawatt reduction. On the basis that AEC had already taken the policy decision discussed above, I responded that the situation with respect to the possible further 200 megawatt reduction would be different from that which applied in the case of the 450 megawatt reduction. It was noted that different cost penalties would be incurred and would have to be recovered, and for this reason it could not be expected that equivalent terms and conditions would apply.

Also, prior to your decision to request this power, I advised you that under its existing contractual arrangements, AEC could only offer to make the power available to our supplying utilities and that any arrangements to secure power for Consolidated Edison relief should be made with those utilities, who in turn could take up the AEC offer as needed. We were not in a position, and had no contractual right, to direct our power suppliers to make any specific reassignment of power. We were merely able to advise them that we were willing to reduce our demand by 200 megawatts at their request as such reduction could help to provide assistance to Consolidated Edison.

It is, of course, our normal practice to enter into firm contractual arrangements prior to the initiation of such major operational changes as this reduction of 200 megawatts. We were willing to depart from this normal practice and to proceed with this reduction on the basis of notice from OVEC and TVA that Consolidated Edison had requested the power to be made available promptly to alleviate the emergency situation which prevailed. We accommodated this request on very short notice in order to meet the schedule you requested, and on the basis that you had been informed that the applicable terms and conditions included a surcharge. While the exigencies of the situation did not permit development and execution of contractual arrangements within the time available, we proceeded in good faith on the understanding that the contractual agreements would be developed and executed promptly.

We subsequently entered into contractual agreements with OVEC and TVA for the 200 megawatt reduction, which agreements included provision for a specific surcharge. The magnitude of this surcharge clearly had,

A 1559

been made known to Consolidated Edison by OVEC and TVA no later than [illegible] not to accept the A[illegible] Consolidated Edison's consent. Since that date, and in the light of continued AEC reaffirmation that a surcharge is fundamental to and part of the cost of this power reduction, Consolidated Edison has continued to accept this 200 megawatts.

We are not unappreciative of the fact that the absence of a surcharge in the initial 450 megawatt reduction appears to make the application of a surcharge on the 200 megawatts discriminatory. We did not and do not now intend it to be so. In the light of the analyses we have made since entering into [illegible] contracts for the initial drop of 450 megawatts, we regard [illegible] as the exception rather than the rule. As you have been informed, we have attempted to secure compensation in that case as well, but have not been able to secure the agreement of our suppliers that the firm contracts involved should be modified to provide such compensation. We have also notified our suppliers that any future reduction of this type will include an appropriate surcharge, or the equivalent. The pertinent difference in the case of the 200 megawatt reduction is that prior to any request to effect a reduction, Consolidated Edison had been informed that a surcharge would be involved.

In light of the above, we can reach no conclusion other than that Consolidated Edison is obligated to provide compensation in order that AEC's separative work costs are not penalized. We see no basis whatsoever for imposing the additional costs on the separative work produced for our enrichment customers; as the beneficiary of this reduction, Consolidated Edison is properly the party to bear any cost penalty. This compensation may be provided either by the surcharge or by providing AEC the opportunity to obtain replacement energy in such amount and at such cost that no penalty in our cost of production results. In this connection, our studies and subsequent developments have permitted some adjustments to the quantitative value of the surcharge; the revised surcharge data were provided to you at our meeting on September 1.

As you know, the current arrangements under which the 200 megawatts is being made available expire on September 30. The AEC is willing to offer to make the 200 megawatts available to our power suppliers beyond this date if such reduction is necessary to alleviate a continuing emergency situation. An appropriate surcharge would, of course, be imposed in any such reduction.

A 1560

[illegible] you made at our September 1 meeting, that in any future power reductions to relieve emergency situations a single surcharge be developed to apply to all reductions effected during a given period of time. We shall keep our firm suppliers informed of our conclusions in this regard.

Sincerely,

George F. Quinn
Assistant General Manager
for Development and Production

cc: Gen. George A. Lincoln
Mr. S. David Freeman
Mr. Donald C. Cook
Mr. James E. Watson
Chairman Joseph C. Swidler

bcc: GM
GC
OC
P
CONS
ORO
W. E. Kriegsman

OFFICE ▶	AGMDP	GC				
SURNAME ▶	GFQ GFQuinn/hm					
DATE ▶	9/22/70					

A 1561

ly 24, 1970

Telephone Conversation - C. F. Luce, Consolidated Edison Company

Tr[illegible] [illegible]:

Mr. Quinn talked to Luce in Roddis' absence on Con/Ed's power problem. Mr. Quinn brought him up-to-date and said we were in a position to make available 200 MW if it would be useful and could be gotten to them. Last report from Chambers, TVA, indicated his figures were about like Con/Ed's. Luce mentioned that Sapirie had indicated the power could be gotten from AEP since he already reduced operations for others; however, made it clear it would be made available if needed. Luce said they were exploring w/AEP such availability, but looks like transmission difficulties exist thru N.J. such that if do get 300-400 MW from AEP that would be all that could be transmitted. Luce asked how quickly we could get the 200 MW to them if needed and Mr. Quinn said can reduce 10 MW/hr. in each plant; would take 10 hours at Paducah. It is split as follows: 50 MW at OR; 50 MW at Portsmouth; 100 MW at Paducah. Mr. Quinn noted already dropped 450 MW; 235 MW went to EEI at Paducah for transmission to Chicago to take care of Com/Ed. 100 MW made available to OVEC at Portsmouth in the AEP system and understand some of this is still available and may be part of the 300 MW people are talking about; 115 MW given to TVA makes up 450 MW. We are not in a position to say to what extent any of this is being used to bolster reserves. Luce asked how the power was priced at each of the 3 locations that would be made available to them. Mr. Quinn said to make these reductions, we will have to shut down some equipment and this will involve some costs. Also would incur some blending losses in having material in the cascade get mixed up. Plan to incorporate into the agreement provision to recover these losses, but do not have actual figures yet since this info is currently being developed. Suggested Luce talk directly to the utilities, in answer to his query, as to whom he should be delaing with on these matters. Luce said their man handling this matter is Arthur Haspurg.

Transcribed Conversation:

Quinn: Lou called yesterday and raised questions about dropping power. We are in a position to make available 200 MW if it would be useful to you and can be gotten there. Would like to bring you up-to-date. Latest report from our people, talked with Chambers, TVA, and the figures that he came back with were about like ours; 150 under TVA contract and 50 under OVEC at Portsmouth.

Luce: Your man Sapirie was hoping would not use any of your power because he already reduced operations for others and suggested AEP might have 300-400 MW we could buy and hope we would, but made it clear would be available. Exploring with AEP the availability of c'd.

what Nagel told us what was available. Looks like transmission limitations thru New Jersey are such that if can get full 300-400 MW from AEP, that is all can get here. However, power purchased from any utility - we might contract to buy from AEP - if buy all could - bring up from utility A and then A was unable to meet its commitment, how quickly could we go to the 200 you are in a position to let us have?

Quinn: Split up: 50 Oak Ridge; 100 Paducah and 50 Portsmouth. Can reduce 10 MW/hr. in each plant; in each case would take 10 hours at Paducah. Have dropped 450 already and don't know where it went. 235 went to EEI at Paducah and understand they wanted to send to Chicago to take care of Commonwealth Edison. 100 made available to OVEC at Portsmouth in the AEP system and our understanding is some of this is still available and may be part of the 300 people are talking about. 115 have given to TVA makes up 450. Extent to which any of this is being used to bolster reserves, we are not in a position to say.

Luce: How is the power priced at each of the 3 locations as available for us?

Quinn: To make these reductions, we will have to shut down some equipment and this will involve some costs. Also would incur some blending losses in having material in the cascade get mixed up. Would incorporate in the agreement provision to recover these losses. Don't know actual figures yet; developing information. Should deal through our contractors on this and arrangements would then be made utility to utility for moving power and for whatever financial arrangements are appropriate. We are in a position here, going up and down as the demand may change is very expensive for us would rather drop power for few months than to try and accommodate day-by-day and week-to-week fluctuations. There are problems. Have to notify contractor with OVEC, have to secure through policy holders and this takes time. As did on original 450, actually dropped power and hope to do on future reductions.

Luce: Who do I discuss with in engineering and contracting?

Quinn: I suggest you talk to the utilities involved - TVA and AEP Then if in order to meet your needs want some of our power, they can discuss and work out the arrangements.

Luce: The bottleneck is at our end. Don't know what PJM - will g thru N.J. and Pa. Arrangements for your power, don't know if want immediately or standby. Will depend on what can move in here. I did not want you to think that your offer was not accepted.

Quinn: We understand. Whatever arrangements come up with, wanted to be sure all things were considered.

Luce: Our man who will be handling is Arthur Haspurg.

August 20, 1970

Telephone Conversations - Transcribed Summaries

C. F. Luce, Consolidated Edison Company

Mr. Quinn called Luce and discussed the 200 MW matter. Mr. Quinn told him we were familiar with the statement Cook issued about Wash. charging in and delivering power that was not needed and that there had been some indication this story came from Con/Ed and asked if this was correct; also, was it his understanding that Wash. was foisting this power on them? Luce said they were looking for power and we offered it, but it all started when Freeman (OST) informed them about arrangements being made to release 6-7,000 KW for utilities this summer to alleviate power shortages and referred to the May announcement. Luce noted that some 400 MW had been released to other utilities; now they needed anything they could get. Mr. Quinn said in his previous conversation with him was on the basis of offering the power if needed. Luce said they did. The stories were Cook's doing since he did not want the government to look like it was playing an important role. Mr. Quinn said he had been told Con/Ed was saying the same thing and Luce indicated he was not aware of this and the rumor was not correct. Con/Ed's problem was with the billing. TVA informed them they had been requested to sign a contract and did so. Mr. Quinn pointed out both our suppliers have signed contracts and gathered that while they were reviewing this matter, we gave Schwartz the info last week. In view of the urgent request, we went ahead and had the paper work done later. Luce said Pres. had announced by this time the power was available and Mr. Quinn agreed, but pointed out he called and informed Luce the 200 was available if Con/Ed wanted it. It was not until very late on 7/24 we received word that Con/Ed needed the power and would work out transmission arrangements. We were not anxious to drop the power and said needed to do transmission studies and discussed production charge and loss of efficiency. Luce said he recalled saying this was satisfactory provided they were treated on same basis as other customers. Mr. Quinn explained this situation was different from the previous reduction - in the 200 MW reduction, going to have to shut down equipment, whereas until that point got away with running same equipment at lower level and it was a somewhat different situation. Luce pointed out there was a loss in either case. Mr. Quinn said the extent of the loss was discussed with Schwartz last week and we were working on that aspect right now. Luce said they were concerned that they were not being treated on a non-discriminatory basis and if the costs were different and there was some basis for it re the two deliveries he would like to discuss, that they received a very high surcharge and the others did not get any. Mr. Quinn said we were looking into this question of a surcharge on the first quantity of power and that there was no deliberate intent to be discriminatory. The May announcement, according to Luce, said arrangements were to be made to drop power to take care of emergency situations. Mr. Quinn said this was discussed with our contract power suppliers and arrangements worked out but had to wait until we had a basic request to act on; we were not dropping power at that time but making preparation to be ready to accommodate requests when an emergency developed. We were not in a position to write contracts at that point. OVEC has to go back to their bond holders and obtain approval and this is a farily lengthy process. Luce said as far as charge was concerned, if there are differences would like to discuss to be sure everyone understands the matter. Mr. Quinn said he heard Roddis had been to the White House talking about some of these matters and we were concerned this course of action was taken without meeting with us first. Luce said he was visiting Freeman on other business and tried to trace back on the sequence of events and policy reasons for differentiating charge to them from charge to others. Mr. Quinn pointed out there would be a difference in any event - what the surcharge amounts to is operating under more or less fixed charges and the calculations were based on the premise the power we drop should carry with it these overhead charges that we have to continue to incur and not penalize the remaining production by loading it up. The further back you cut, the worse the penalty becomes. Luce said the announcement indicated X number of KW would be available and Mr. Quinn said there was no specific figure in the announcement. At time of announcement, did not specify any quantitative figure for how much the AEC would release. After made the first 450 reduction, we were not sure how much further we could cut back without shutting down a plant. After dropped 450 first couple weeks in July, saw how the plant was behaving. The voltages ran high and got close to trip point in the equipment; going the extra 200 MW does involve some risk that equipment would be tripping out and be subject to damage. Mr. Quinn pointed out that no provision was made for this. Luce again said they only wanted equal treatment and would like to discuss; the last increment of power bears all the cost and the first does not; the increment proposed is covering increased cost that goes with the 200 MW and not intended to cover anything on the first 450 MW. Mr. Quinn said in each case we have said have so much power available and offered it and in the case of the 450 was not picked up right away. Your case had much shorter fuse. It is general policy that we would be willing to reduce power to take care of emergnecy situations to the extent we can. Luce said then we should discuss on a fair basis. Mr. Quinn indicated we had given them our numbers and background and would meet and review them. Mr. Quinn said possibly some of our Commissioners might

Charles F. Luce
Chairman of the Board

A 1565

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-2003

September 30, 1970

Mr. George F. Quinn
Assistant General Manager
for Development and Production
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Quinn:

I have your letter of September 22, 1970 respecting the proposed application of a surcharge to the electricity released from the AEC gaseous diffusion plants and purchased by Con Edison from TVA and OVEC. I appreciate your furnishing to me a complete statement of the AEC's position and I have given your letter careful consideration.

The essence of our disagreement arises from your conclusion that "whether or not a surcharge is paid on the 450 megawatt reduction is not relevant to the issue of a surcharge on the 200 megawatt reduction." It is our view that the undisputed facts make the surcharge treatment of the 450 megawatt reduction not only relevant but determinative of the validity of the claim for a surcharge on the 200 megawatt reduction.

The pertinent factual background commences with the public statement issued by the President's Office of Emergency Preparedness on May 5, 1970. That statement reported that the measures being taken by the Federal Government to reduce brownouts in the coming months included the curtailment of summer production at the AEC gaseous diffusion plants. New York City was specifically mentioned as one of the areas in which the power supply might be insufficient.

Cy to J. Weiss, FPC
10/12/70

PX 28

On July [illegible], 1973, the 450 megawatt release was made. The Con Edison 1,000 megawatt generator, located at its Ravenswood plant, went out of service during the evening of July 21. The following day Mr. S. David Freeman, Director, Energy Policy Staff, Office of Science and Technology, called Con Edison to offer assistance by way of a release of AEC power. A statement was issued to the press by the White House on July 23 stating that the AEC release of power for Con Edison "is pursuant to the contingency plans previously developed and announced by the Office of Emergency Preparedness on May 5." Thus, the releases of the two blocks of power were placed on a parity and inextricably bound together as parts of a single package.

It was in this context that my telephone conversation with you took place on July 24. When you mentioned the possibility of a surcharge which might be different in amount from the surcharge on the 450 megawatt reduction because of different cost factors, I responded that Con Edison would not object to a proper surcharge if the utilities for whose benefit the 450 megawatts were released earlier in July paid a surcharge assessed on the same basis. You did not challenge this position, though you did point out that the loss of productive capacity per megawatt might be greater for the release of the second 200 megawatts than for the first 450 megawatts. I concluded, and I believe properly so, that we had reached a meeting of the minds on the subject, specifically that the basis for any surcharge against Con Edison would be the same as for the utility that received the initial 450 megawatts. My conviction to this effect finds confirmation in the AEC press release of July 27 which expressly described the 450 megawatt and the 200 megawatt reductions as "two steps" in AEC's participation in the government's effort to prevent serious power shortages during the summer peak season.

Your letter of September 22 states that no provision was made for a surcharge at the time of the 450 megawatt reduction and that the surcharge policy was established thereafter but prior to our telephone conversation of

July 24. I cannot regard Con Edison as being affected by these facts since this information was not given to me in our telephone conversation when we were in the process of reaching our understanding. At our meeting on September 1 at the AEC offices in Germantown you informed us that AEC was attempting to assess a surcharge for the 450 megawatt release and the meeting ended with your statement that AEC would give the matter further consideration and that we would be advised of the results. Under these circumstances the continued acceptance by Con Edison of the released power does not constitute an acquiescence in the assessment of a surcharge on the basis that you now propose.

Needless to say, I regret very much that what I regarded as a clear understanding appears to have developed into a disagreement. When the Federal Government's program to assist in alleviating power shortages was announced, we welcomed it as an important supplement to our efforts to maintain adequate service for our customers in New York City and Westchester County. We have appreciated the assistance that we have received. We do not believe, however, that a discriminatory surcharge is compatible with the announced purpose and intent of the Federal Government's program. We stand willing to pay for the power released for our benefit on a basis of equal treatment with all others. We do not believe we should be singled out for a special charge which is of such magnitude that it would place the cost of the government-sponsored power at the highest level that Con Edison has been required to pay for comparable power during the emergency periods encountered this summer.

I have endeavored to confine this reply to the central point of our disagreement. For that reason I have not attempted to refute each and every statement in your letter or to advance all the arguments which legally support our position. I hope it will not be necessary to reach that stage. We think that in fairness and equity we are entitled to be relieved of the surcharge if the others are, just as we are willing to pay it if the others do.

Sincerely,

Charles F. Luce

Charles F. Luce

cc: Gen. George A. Lincoln
Mr. S. David Freeman
Mr. Donald C. Cook
Mr. James E. Watson
Chairman Joseph C. Swidler

A 1569

October 9, 1970

Mr. Charles F. Luce
Chairman of the Board
Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Dear Mr. Luce:

This will acknowledge receipt of your letter of September 30, 1970, discussing further the matter of the surcharge imposed by AEC on the electricity released from our diffusion plants and made available to Consolidated Edison by TVA and OVEC.

In view of the indicated substantial disagreement in our understandings as to the significance of the discussions precedent to the Consolidated Edison request for the release of AEC power and as to the facts relevant to the situation, it appears that the approach to resolution of these differences on a management or policy basis may no longer be fruitful. Under these circumstances, and before decisions are reached concerning further formal steps, it may be appropriate to arrange a meeting between our respective legal staffs at this time to discuss in more detail the respective legal positions.

If a meeting of this nature would be agreeable to Consolidated Edison, our General Counsel, Joseph F. Hennessey, is prepared to arrange for such a meeting.

Sincerely,

(Signed) G. F. Quinn

George F. Quinn
Assistant General Manager
for Development and Production

cy to J Weiss, FR 10/12/70

cc: Gen. George A. Lincoln
Mr. S. David Freeman
Mr. Donald C. Cook
Mr. James E. Watson
Chairman Joseph C. Swidler PX 29

bcc: GM - ORO
GC - Chairman Seaborg
OC - Commissioner Ramey
P - Commissioner Johnson
CONS - Commissioner Thompson
- Commissioner Larson
- SECY

OFFICE ▶	AGMDP					
SURNAME ▶	GFQuinn/ct					
DATE ▶	10/9/70					

A 1570

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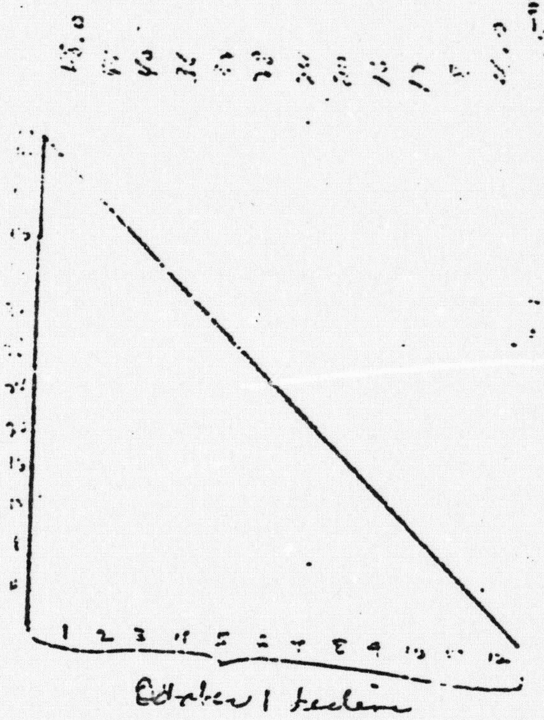
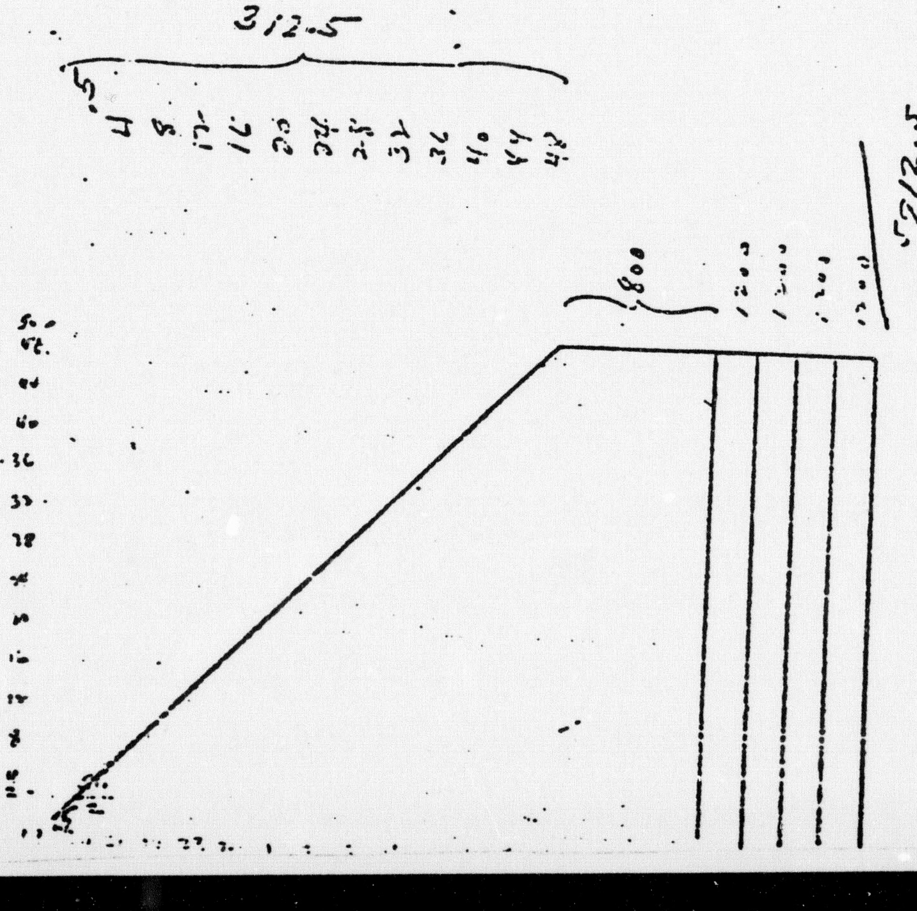
1990





CAEB

A 1571

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diff. 247,800

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for Co. File 1970

A 1572

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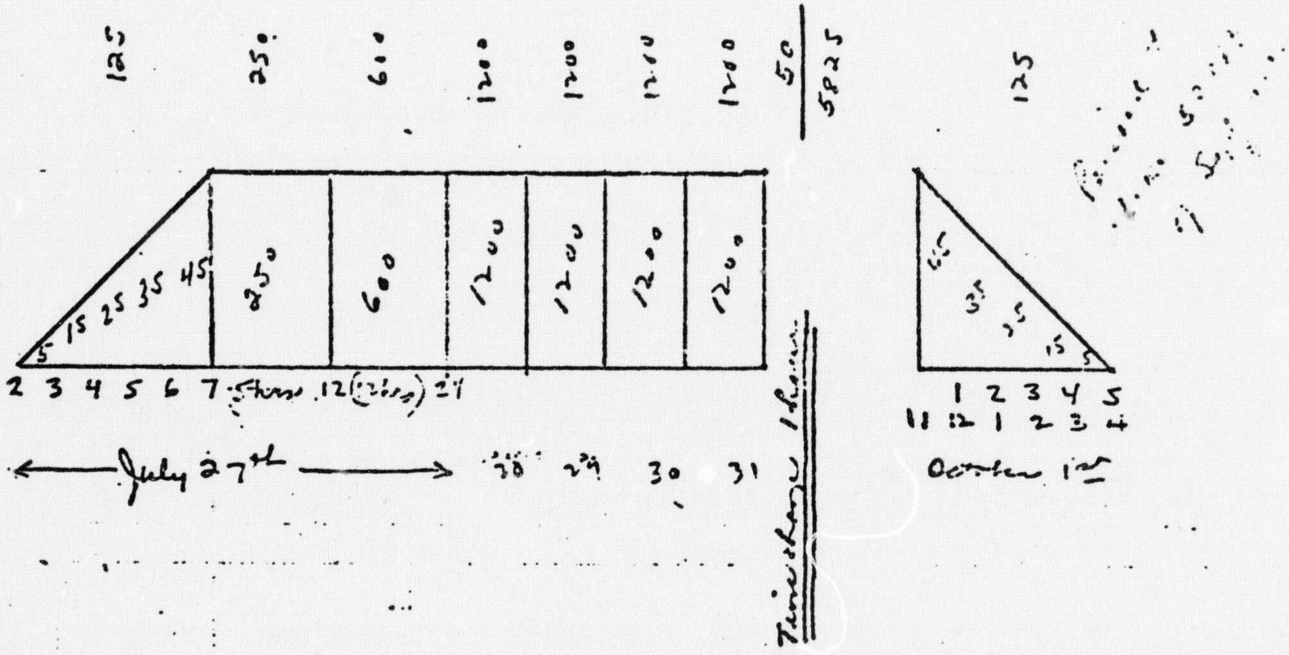

125
250
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2 3 4 5 6 7
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July 27th
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Time change 1 hour
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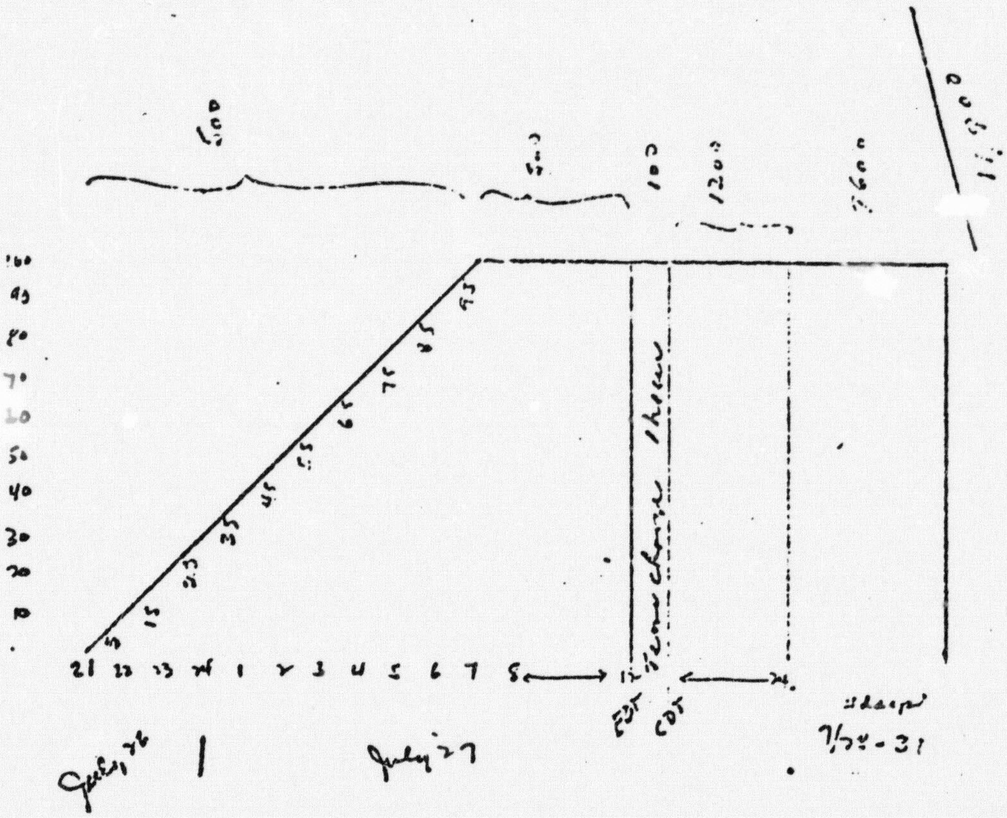
October 1st

A 1573

Trip - [illegible]



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A 1574

July August Sept.

[illegible]

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24
1800) 204,115

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363125
79,425.0

865,248
565,920.00
108,550 -
1542,718

5912.5
5907.6
4.9

3.92
316.2

Charles F. Luce
Chairman of the Board

A 1575

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N.Y. 10003
Telephone (212) 460-2003

October 14, 1970

Mr. George F. Quinn
Assistant General Manager
for Development and Production
United States Atomic Energy Commission
Washington, D.C. 20545

Dear George:

I have your letter of October 9, 1970, and I think that your suggestions are appropriate to the situation.

Mr. Joseph D. Block, our Vice President and General Counsel, will be expecting to hear from Mr. Hennessey.

Sincerely,

Charles

Charles F. Luce

BX 30

A 1576

UNION CARBIDE

INTERNAL CORRESPONDENCE

NUCLEAR DIVISION

POST OFFICE BOX P, OAK RIDGE, TENNESSEE 37830

To (Name) D. M. Lang
Division
Location

Date January 2, 1970
Originating Dept. Operations Analysis
Answering letter date
Subject Performance Curves for the Gaseous Diffusion Plants for FY-1969 Improvement Status

Copy to
A.E.C. (6)
J. G. Cooke
S. J. Cromer
M. S. Ginsburg
M. Hanig
D. E. Hatch
T. Hope
R. G. Jordan
S. G. Ledford
A. J. Legeay
T. R. Lemons
S. A. Levin
M. S. Lisso
P. S. Mellinger (GAT)
W. G. Norton
L. P. Pasquier
G. H. Reynolds (GAT)
K. W. Sommerfeld
S. S. Stief
C. D. Tabor (GAT)
P. R. Vanstrum
R. A. Winkel
F. E. Woltz (GAT)

K-OA-1806

At your request, the estimated performance of the gaseous diffusion plants as related to area power level has been revised to incorporate all process improvements installed by the plant test program as of the end of fiscal year 1969, and to obtain better agreement between estimated and observed performance at current low power levels. At these low power levels, the current bases for calculating plant performance overstate the performance; the revised performance curves presented in the attached figures will remedy this inconsistency. We are continuing to review the performance bases utilizing additional plant data as it becomes available, and may incorporate further refinements if they appear desirable.

The performance relationships are shown in Table I in terms of separative capacity, incremental separative capacity, and power utilization index (PUI). The relationships are illustrated in Figures 1 through 8 for each site and the complex total. These performance estimates supersede those presented in K-C-766* which have been used up to the present time.

---

* Jordan, R. G., Request for Separative Work Data, Union Carbide Corporation, Nuclear Division, March 19, 1965 (K-C-766).

A 1577

The separative capacity correlations represent the performance expected from the gaseous diffusion plants as currently equipped. Basically, the observed performance was utilized for the 2000 MW complex, with calculated performance being used at higher power levels. The Paducah performance includes an adjustment for additional power consumption in high power test cells. The Portsmouth performance correlations were prepared by Goodyear Atomic Corporation.* The 3-plant complex curves were constructed by summing the separative capacity values of the individual sites at power levels currently scheduled for the future, and fitting curves intermediate to the high and low points.

T. R. Lemons
T. R. Lemons

S. G. Ledford

---

* Mellinger, P. S., Performance Curves for the Portsmouth Cascade-End of FY-69 Improvement Level, Goodyear Atomic Corporation, October 24, 1969 (GAT 531-69-125), Confidential.

A 1578

TABLE I

PERFORMANCE ESTIMATES FOR THE GASEOUS DIFFUSION PLANTS

ORGDP				Portsmouth			
Area Power Level, MW	Separative Capacity, kg U/day	Incremental Separative Capacity, kg U/MW-day	Average PUI,* kg U/MW-day	Area Power Level, MW	Separative Capacity, kg U/day	Incremental Separative Capacity, kg U/MW-day	Average PUI,* kg U/MW-day
1,774	13,400	0	7.55	2,100	14,560	0	6.93
1,700	13,200	3.55	7.76	2,000	14,540	1.45	7.27
1,600	12,750	4.95	7.97	1,900	14,350	2.75	7.55
1,500	12,225	5.85	8.15	1,800	14,050	3.90	7.81
1,400	11,600	6.55	8.29	1,700	13,580	4.84	7.99
1,300	10,910	7.05	8.39	1,600	13,070	5.59	8.17
1,200	10,180	7.52	8.48	1,500	12,470	6.22	8.31
1,100	9,410	7.90	8.55	1,400	11,830	6.76	8.45
900	7,770	8.42	8.63	1,300	11,120	7.24	8.55
700 500	6,050 4250	8.80	8.64	1,100	9,590	8.02	8.72
400	3,350	9.20	8.37	900	7,880	8.68	8.76
300	2200			700	6,140	9.25	8.77
				400	3,220	10.00	8.05
				350	2750		
				300	2200		
				500	4250		

Paducah							
Area Power Level, MW	Separative Capacity, kg U/day	Incremental Separative Capacity, kg U/MW-day	Average PUI,* kg U/MW-day	Area Power Level, MW	Separative Capacity, kg U/day	Incremental Separative Capacity, kg U/MW-day	Average PUI,* kg U/MW-day
2,647	20,200	0	7.63	1,800	15,440	7.45	8.58
2,500	19,870	4.30	7.95	1,600	13,900	7.85	8.69
2,400	19,390	5.30	8.08	1,400	12,290	8.20	8.78
2,300	18,820	5.90	8.18	1,200	10,625	8.50	8.85
2,200	18,210	6.30	8.28	800	7,120	9.00	8.90
2,000	16,890	6.98	8.45	700	6150		
				600	5200		

* Power utilization index based on area power level.

7 X 10 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

A 1578

K-OA-1806

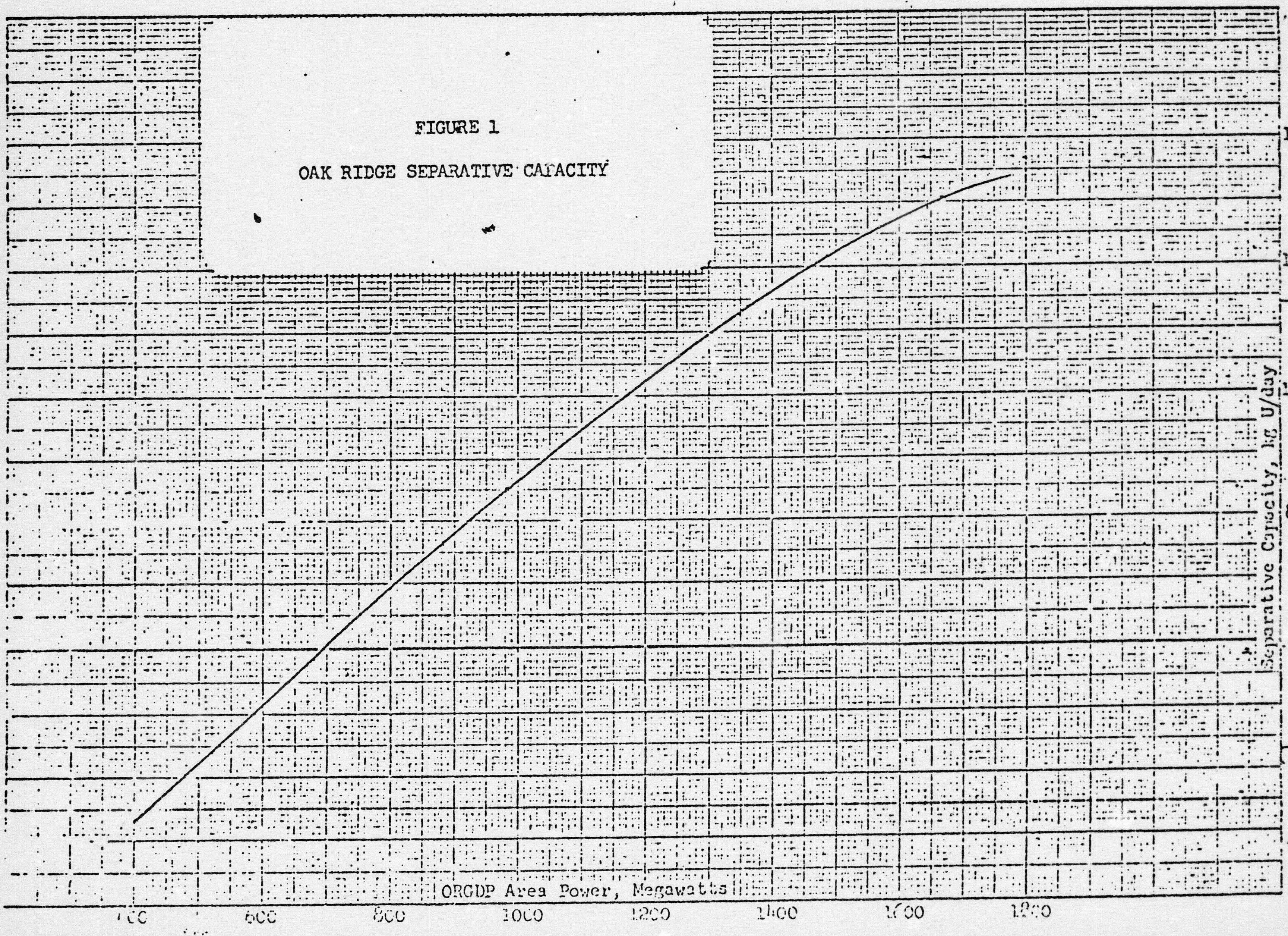


FIGURE 1

OAK RIDGE SEPARATIVE CAPACITY

K+E 20 X 20 TO THE INCH 46 1242
7 X 10 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

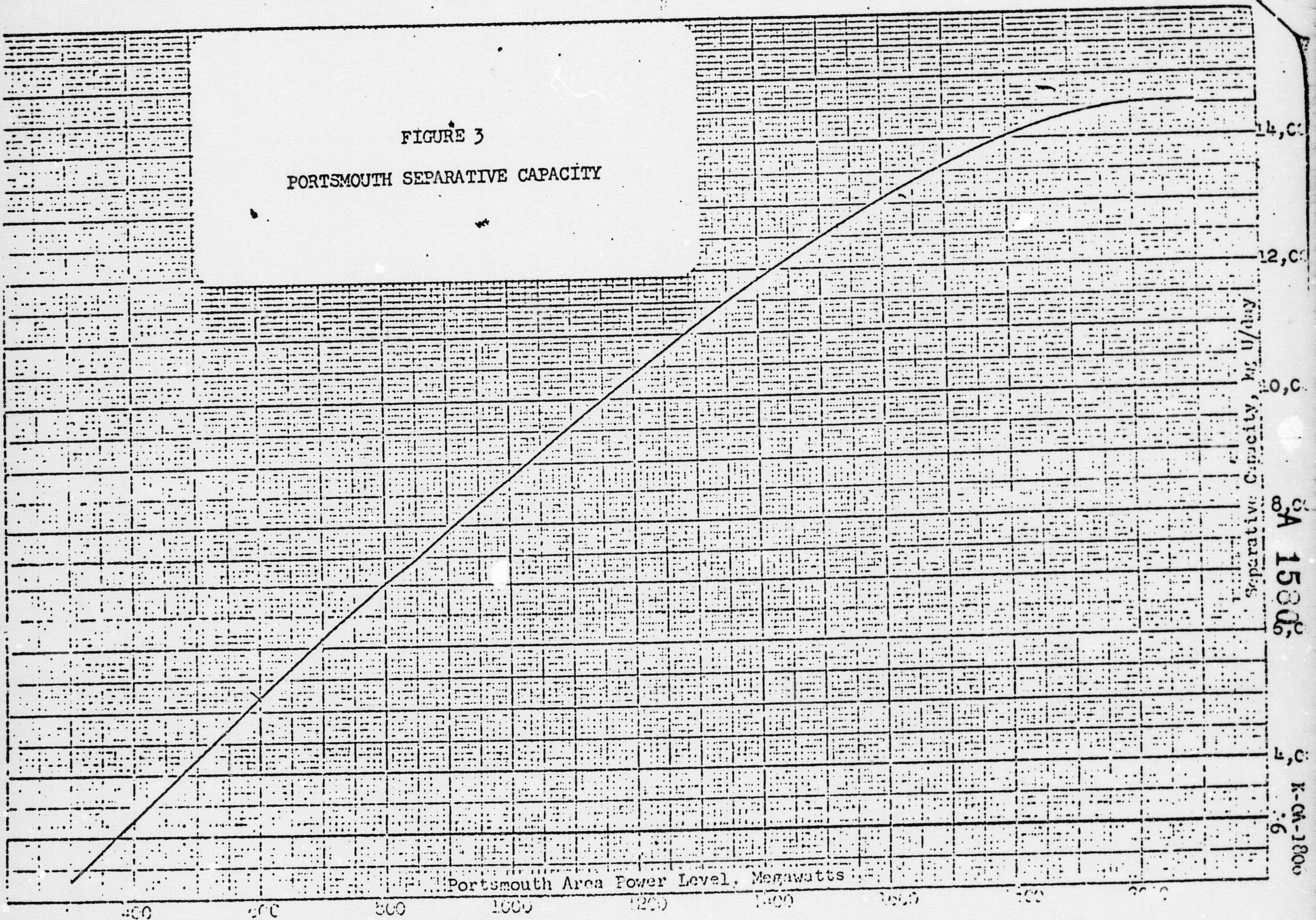


FIGURE 3

PORTSMOUTH SEPARATIVE CAPACITY

A 1580

K-OA-1806

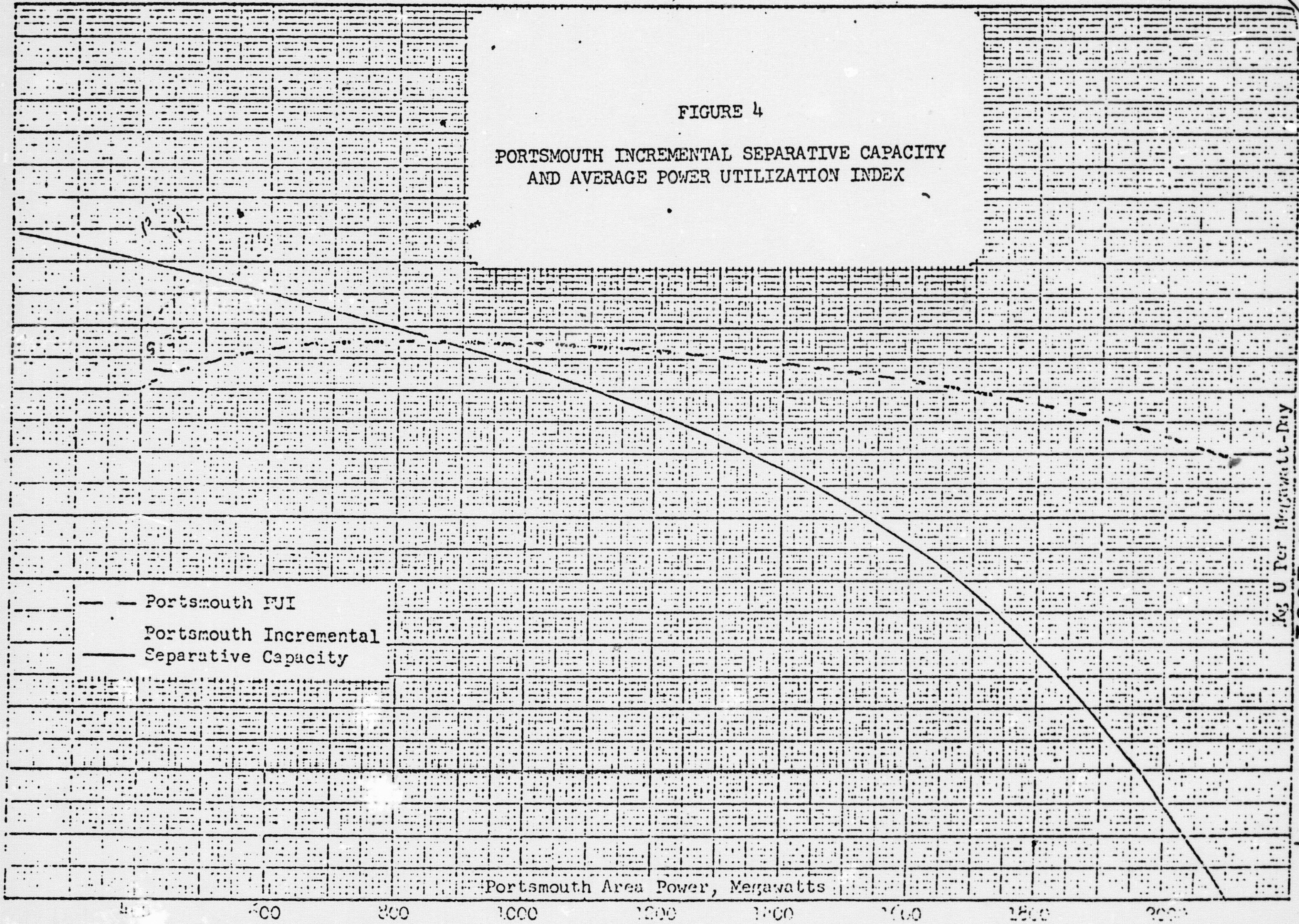
6

KEUFFEL & ESSER CO.

A 1581

FIGURE 4

PORTSMOUTH INCREMENTAL SEPARATIVE CAPACITY
AND AVERAGE POWER UTILIZATION INDEX



7 X 10 INCHES
KEUFFEL & ESSER CO.

A 1582

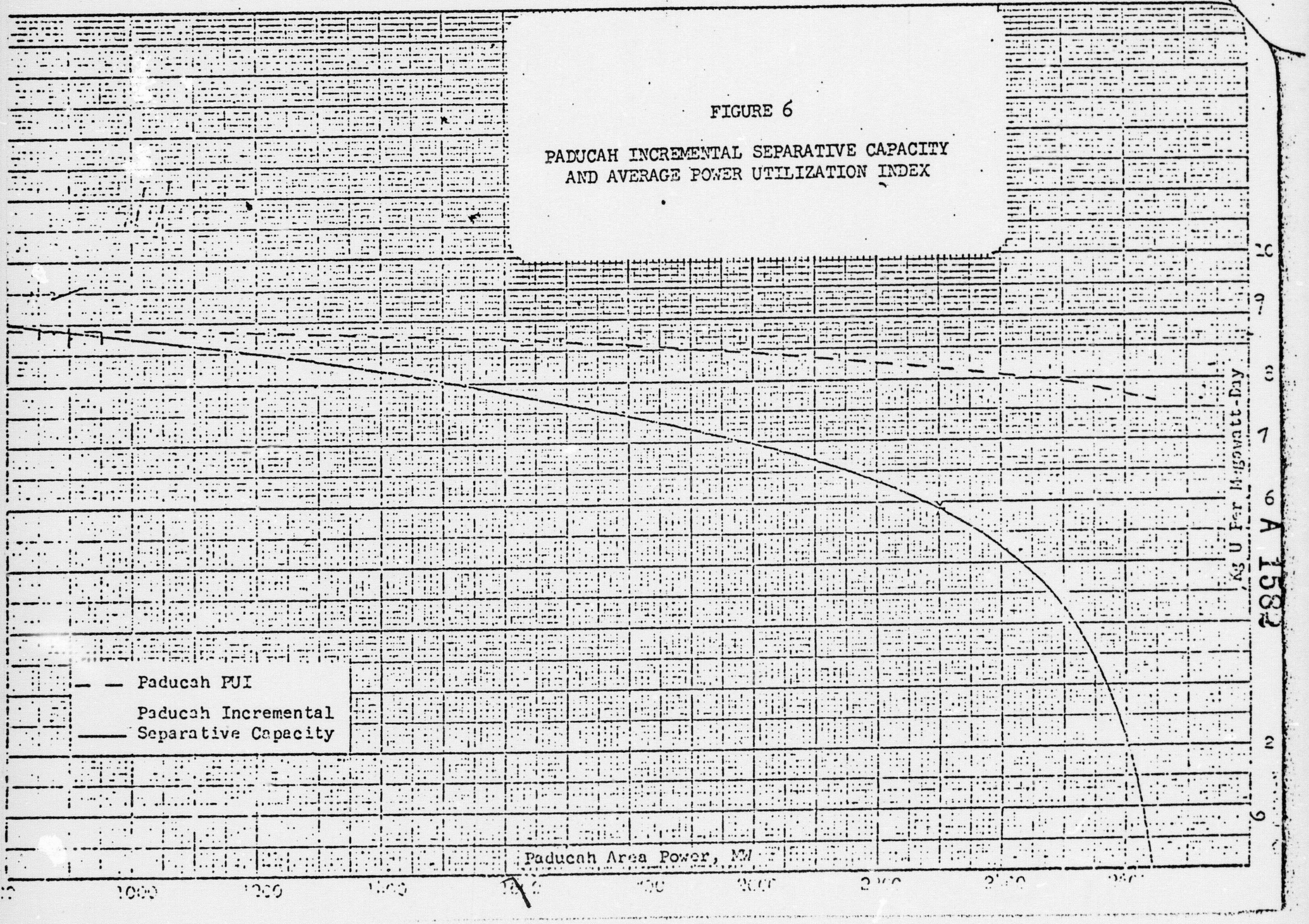


FIGURE 6

PADUCAH INCREMENTAL SEPARATIVE CAPACITY
AND AVERAGE POWER UTILIZATION INDEX

7 X 10 INCHES
KEUFFEL & ESSER CO.

A 1583

K-OA-1
8

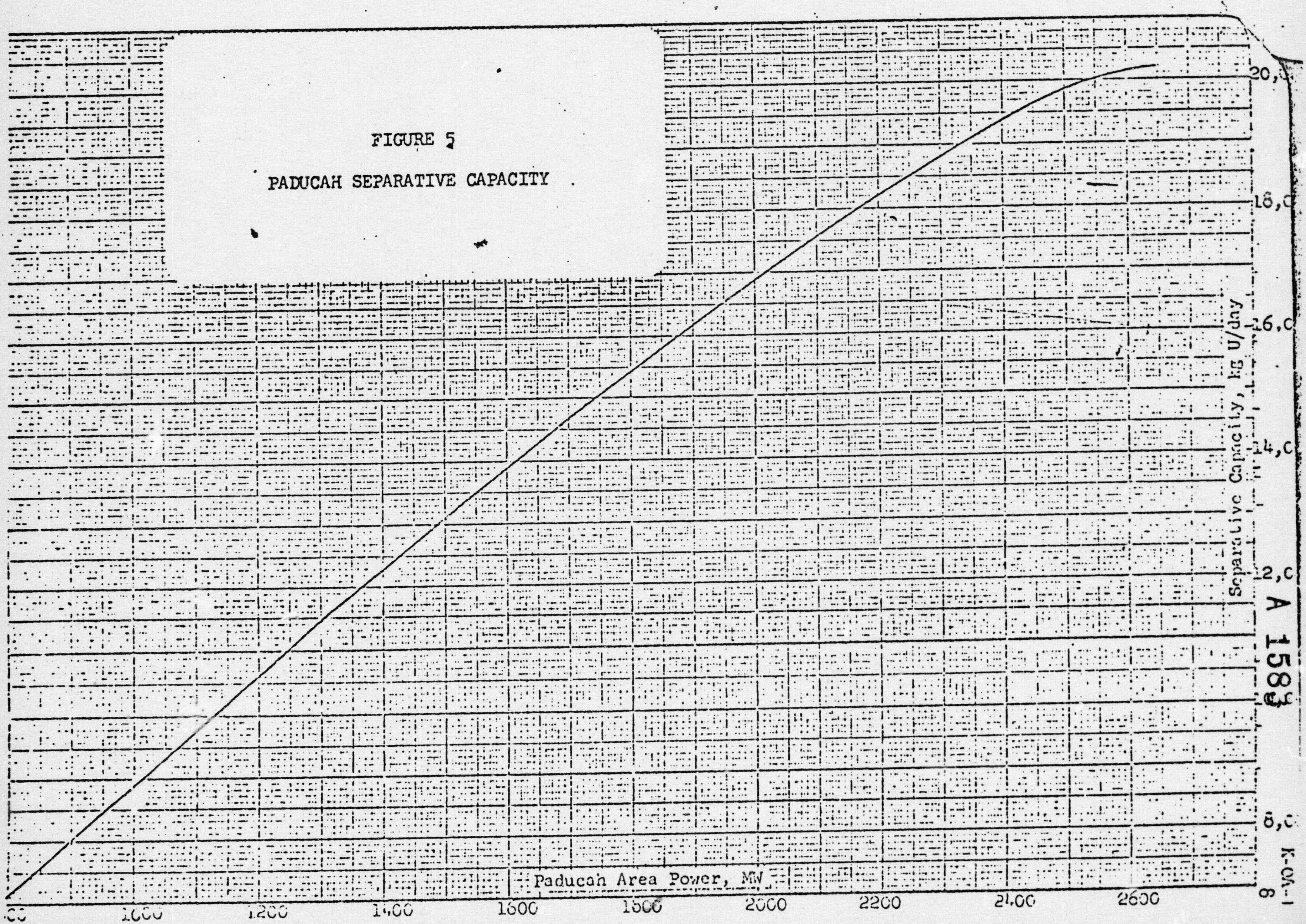


FIGURE 5

PADUCAH SEPARATIVE CAPACITY

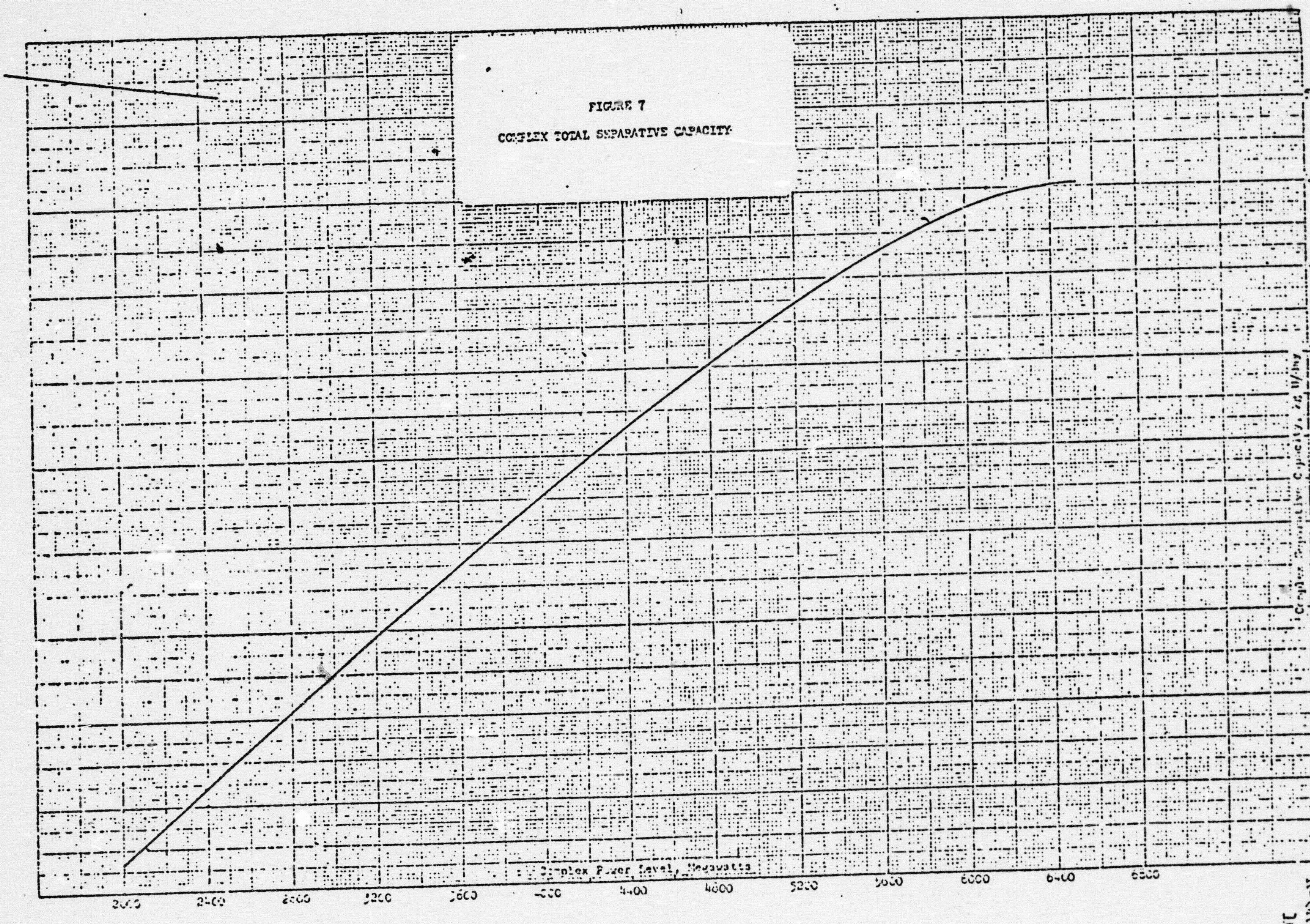


FIGURE 7

COMPLEX TOTAL SEPARATIVE CAPACITY

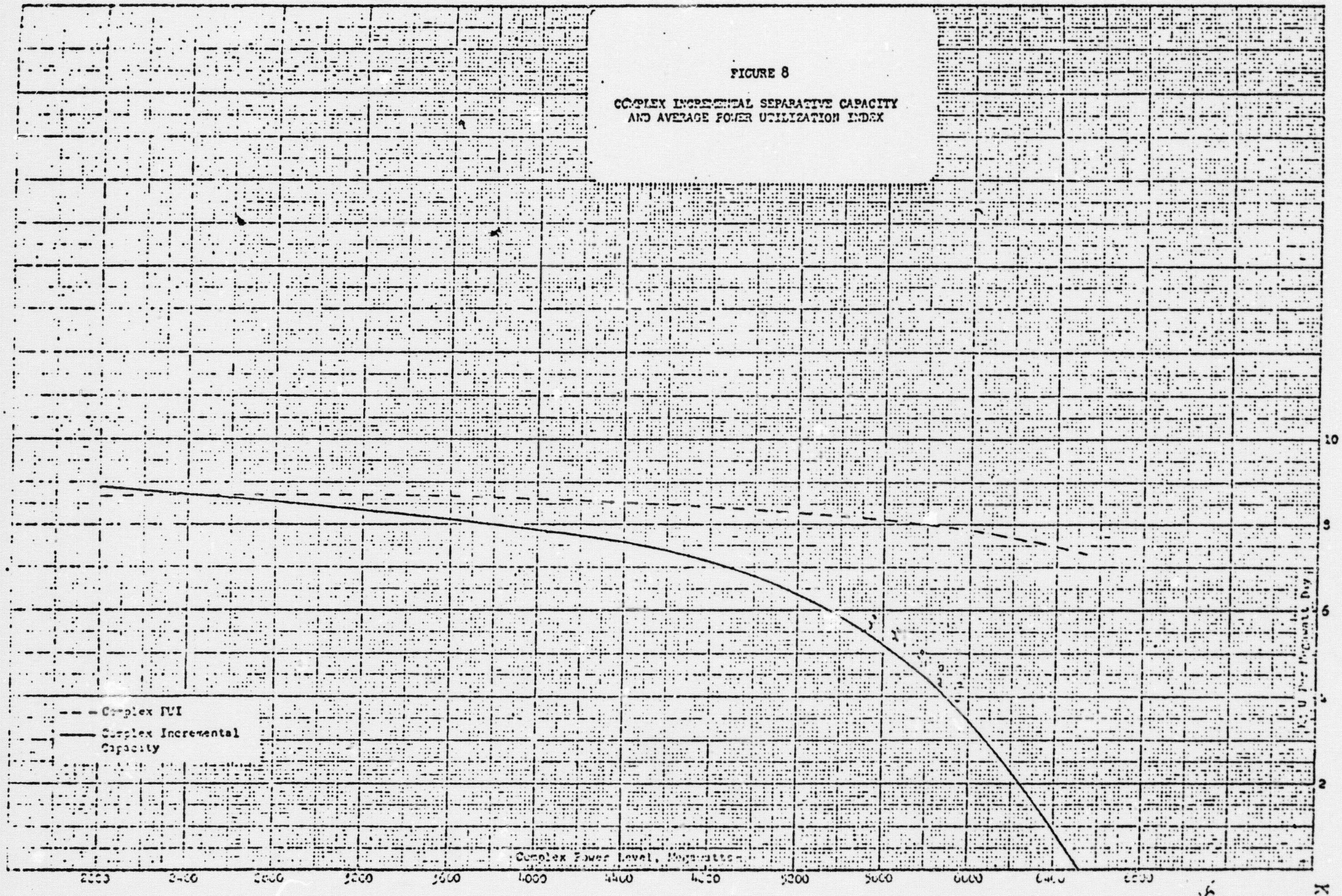
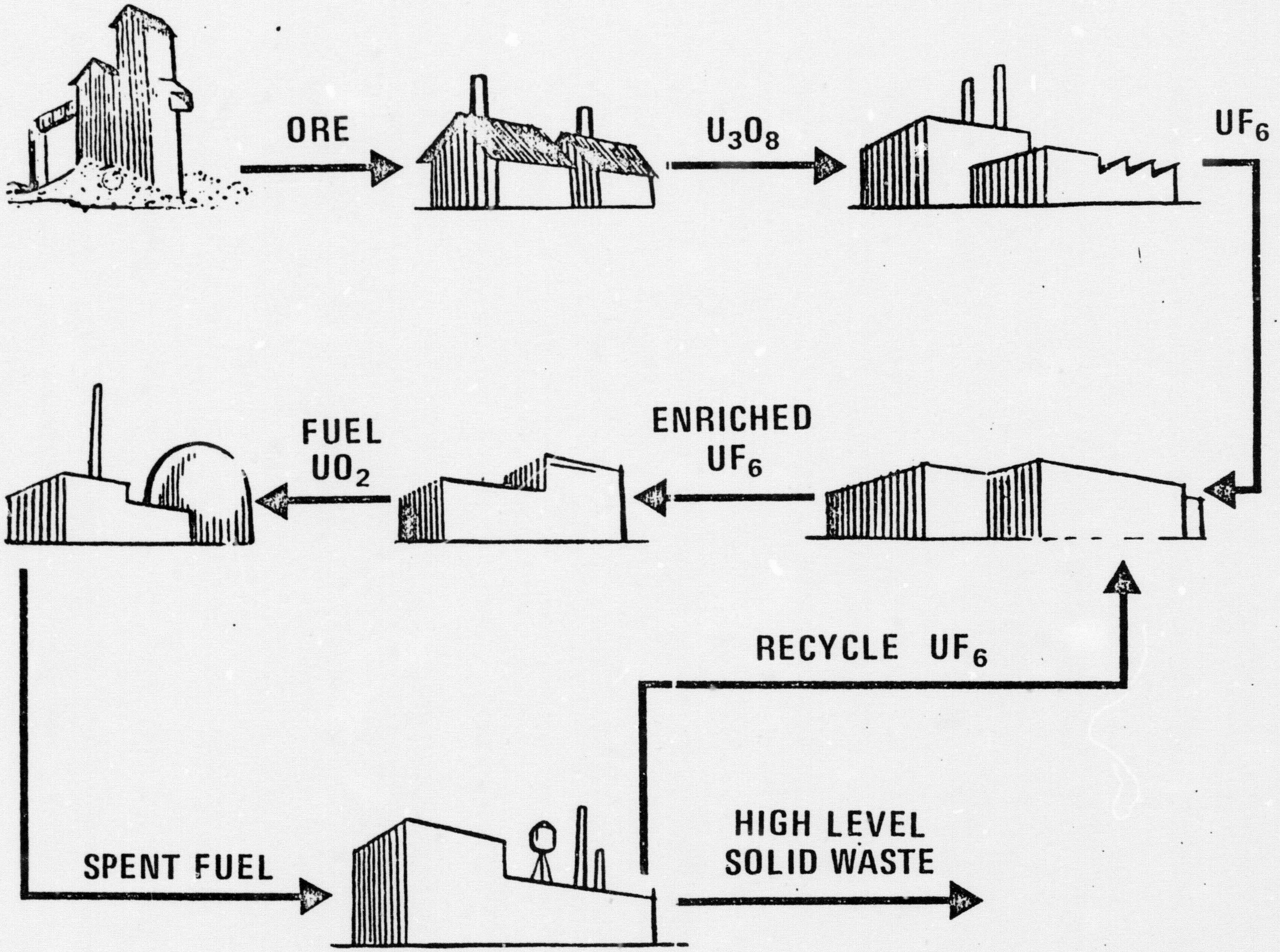


FIGURE 8

COMPLEX INCREMENTAL SEPARATIVE CAPACITY AND AVERAGE POWER UTILIZATION INDEX

NUCLEAR FUEL CYCLE


ORE
U_3O_8
UF_6
ENRICHED UF_6
FUEL UO_2
SPENT FUEL
RECYCLE UF_6
HIGH LEVEL SOLID WASTE

PX 37

Figure 8

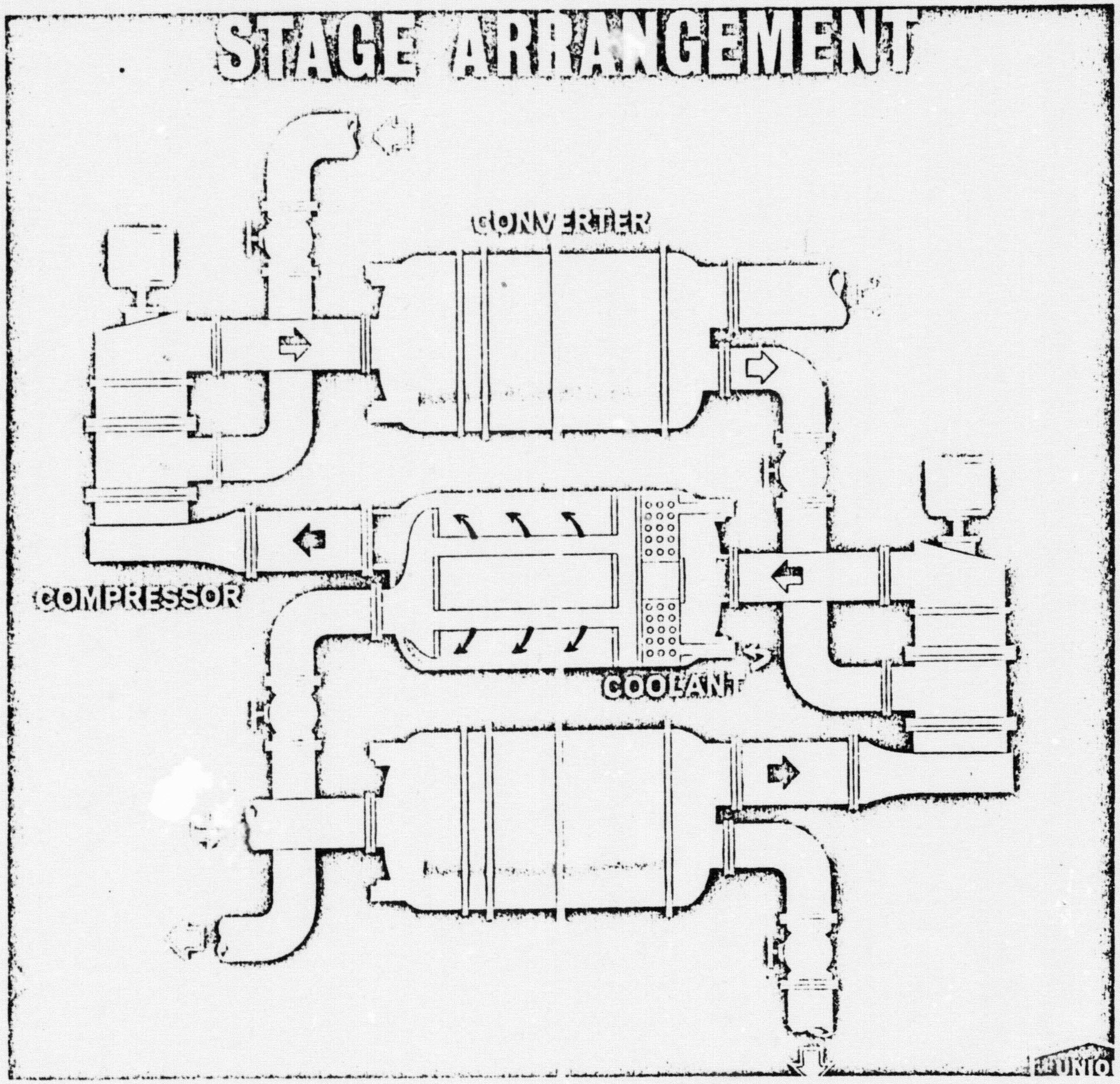
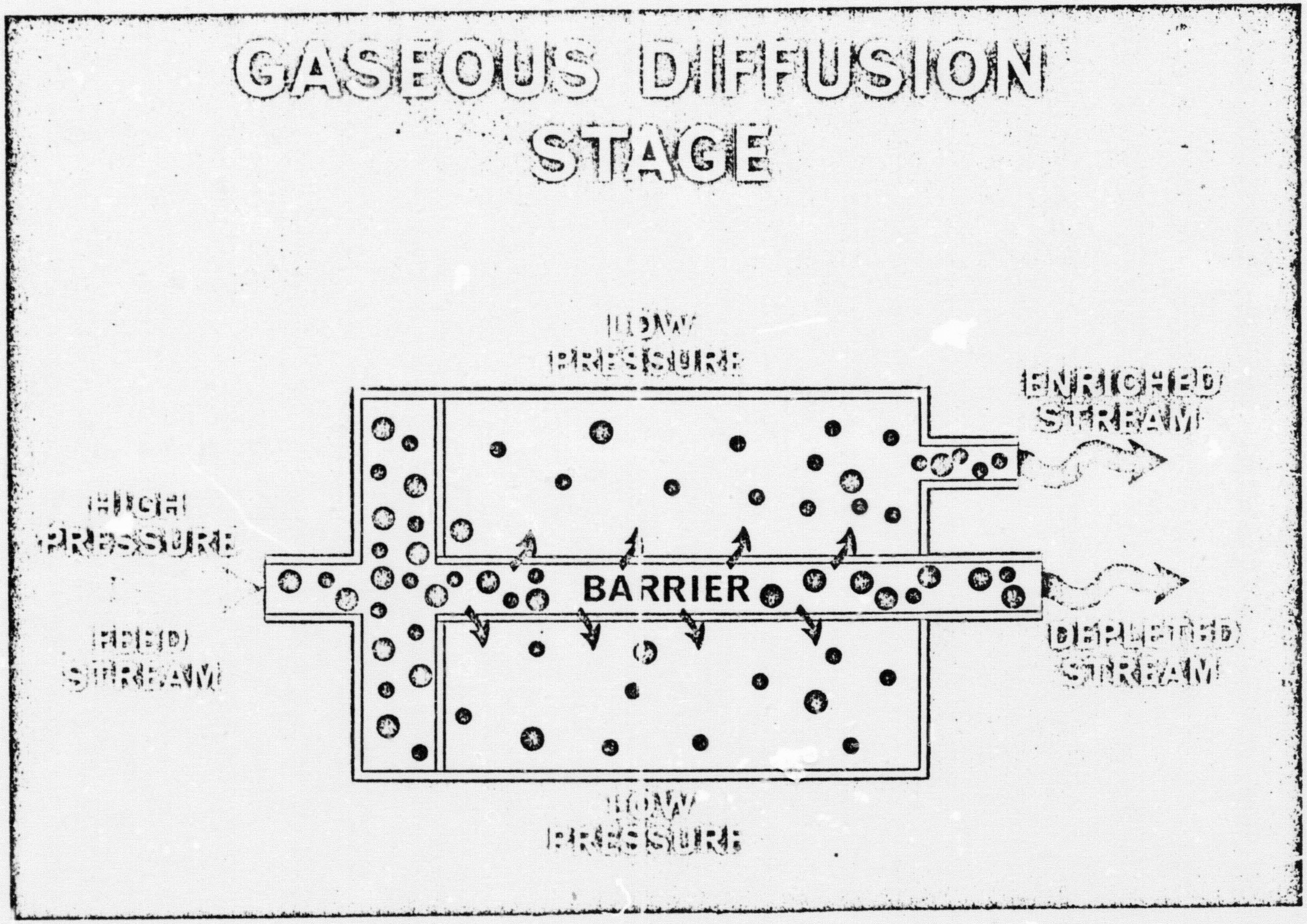
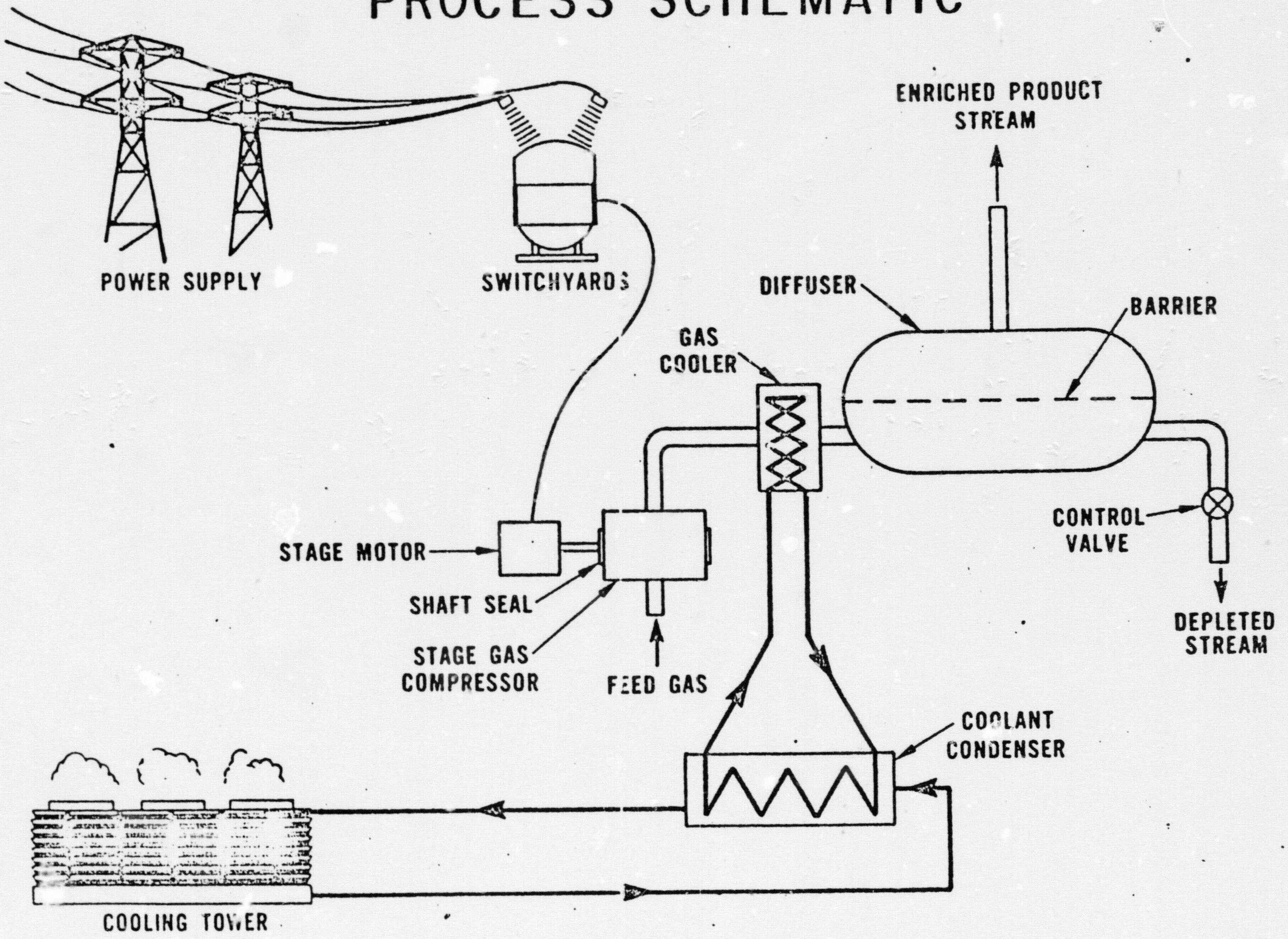

STAGE ARRANGEMENT
CONVERTER
COMPRESSOR
COOLANT

Figure 7


GASEOUS DIFFUSION STAGE
HIGH PRESSURE
FEED STREAM
LOW PRESSURE
BARRIER
LOW PRESSURE
ENRICHED STREAM
DEPLETED STREAM

GASEOUS DIFFUSION PROCESS SCHEMATIC


POWER SUPPLY
SWITCHYARDS
ENRICHED PRODUCT STREAM
DIFFUSER
BARRIER
GAS COOLER
CONTROL VALVE
DEPLETED STREAM
STAGE MOTOR
SHAFT SEAL
STAGE GAS COMPRESSOR
FEED GAS
COOLANT CONDENSER
COOLING TOWER

PX 40

Increased Cost Due to Relinquishment By The AEC of Its Contract Rights to 200 MW Of Power To Benefit Consolidated Edison Company of New York, Inc. 7/26/70 - 10/1/70

	Cost	Units of Separative Work	Unit Cost of Separative Work
Actual Unit Cost of Separative Work During Period of Reduced Power for Consolidated Edison (Pgs. 2 & 4)	$20,938,492	822,833	$ 25.4468
Unit Cost of Separative Work Assuming No Reduction Of Power to Benefit Consolidated Edison (Pgs. 3 & 6)	22,321,164	948,605	23.5305
Increased Unit Cost at Reduced Power			$ 1.9163
Separative Work Units Produced at Reduced Power			822,833
Increased Total Cost ($1.9163 x 822,833)			$ 1,576,795

PX 41

PLF'S EXH. ________ FOR ID

DEFT'S EXH. 177 FOR ID

RL DATE 4/20/77

TABLE I - COSTS

1. Actual Costs Incurred During Period of Power Reduction To Benefit Consolidated Edison

1970

	July	August	September	October	Total
A. ORGDP					
Power Cost	$ 201,837	$1,246,510	$ 1,389,836	$ 10,900	$ 2,849,083
Fixed Operating Cost	170,004	1,074,238	1,277,969	8,550	2,530,761
Added Factor Cost	95,055	611,445	598,603	3,685	1,308,788
Total ORGDP	466,896	2,932,193	3,266,408	23,135	6,688,632
B. Paducah					
Power Cost	326,213	1,867,448	2,848,899	41,759	5,076,870
Fixed Operating Cost	154,998	940,679	1,153,627	12,720	2,262,024
Added Factor Cost	10,256	55,050	59,867	751	125,924
Total Paducah	491,467	2,863,177	4,062,393	54,939	7,471,976
C. Portsmouth					
Power Cost	199,239	1,057,088	1,027,559	16,025	2,295,547
Fixed Operating Cost	235,861	1,520,765	1,558,976	24,513	3,340,115
Added Factor Cost	28,493	145,423	133,279	2,294	309,489
Total Portsmouth	463,593	2,723,276	2,719,814	42,832	5,949,515
D. AEC					
Fixed Operating Cost	3,200	34,524	22,713	255	60,692
Added Factor Cost	57,493	336,062	369,989	4,133	767,677
Total AEC	60,693	370,586	392,702	4,388	828,369
Total Costs	$1,482,649	$8,889,232	$10,441,317	$125,294	$20,938,492

NOTE: The above are actual cost incurred by the AEC in the Uranium Enrichment Activity and are exclusive of cost related to other non-uranium enrichment AEC activities. This actual cost is detailed in the attached appendices as follows: Power Cost in Appendix 1, Fixed Operating Cost in Appendix 2 and Added Factor Cost in Appendix 3.

A 1592

2. Cost Assuming No Power Reduction to Benefit Consolidated Edison

	1970				
	July	August	September	October	Total
A. ORGDP					
Power Cost	$ 229,492	$1,423,212	$ 1,562,637	$ 11,495	$ 3,226,836
Fixed Operating Cost	170,004	1,074,238	1,277,969	8,550	2,530,761
Added Factor Cost	95,055	611,445	598,603	3,685	1,308,788
Total ORGDP	494,551	3,108,895	3,439,209	23,730	7,066,335
B. Paducah					
Power Cost	377,841	2,190,375	3,165,502	43,633	5,777,351
Fixed Operating Cost	154,998	940,679	1,153,627	12,720	2,262,024
Added Factor Cost	10,256	55,050	59,867	751	125,924
Total Paducah	543,095	3,186,104	4,378,996	57,104	8,165,299
C. Portsmouth					
Power Cost	226,521	1,212,281	1,179,686	17,019	2,635,507
Fixed Operating Cost	235,861	1,520,765	1,558,976	24,513	3,340,115
Added Factor Cost	28,493	145,423	133,279	2,294	309,489
Total Portsmouth	490,875	2,878,469	2,871,941	43,826	6,285,111
D. AEC					
Fixed Operating Cost	3,200	34,524	22,713	255	60,692
Added Factor Cost	57,493	336,062	369,989	4,133	767,677
Total AEC	60,693	370,586	392,702	4,388	828,369
	$1,589,214	$9,544,054	$11,082,848	$129,048	22,345,164
Less Added Maintenance*					24,000
Total Cost (Page 1)					$22,321,164

* Extraordinary maintenance cost resulting from power changes of this magnitude have been determined to be $80 per MW change. Total MW change, both reduction and restoration, was 300 (300 x $80 = $24,000).

A 1593

TABLE II - SEPARATIVE WORK

1. Actual Separative Work Production During Period of Power Reduction To Benefit Consolidated Edison

	Hours	Actual Average MW Level	Days	Separative Capacity	Separative Work Performed
A. ORGDP					
7/27/70	0001-0100	422	1/24	3,570	149
	0100-0200	412	"	3,470	145
	0200-0300	408	"	3,430	143
	0300-0400	396	"	3,304	138
	0400-0500	383	"	3,155	131
	0500-0600	378	"	3,097	129
	0600-2400	376	18/24	3,074	2,306
7/28-7/31/70		376	4	3,074	12,296
8/1-8/31/70		372	31	Actual	96,766
9/1-9/30/70		421	30	Actual	109,497
10/1/70	0001-0100	437	1/24	3,720	155
	0100-0200	447	"	3,820	159
	0200-0300	457	"	3,920	163
	0300-0400	467	"	4,020	168
	0400-0500	477	"	4,120	172
TOTAL ORGDP					222,517
B. Paducah					
7/26/70	2000-2100	686	1/24	6,017	251
	2100-2200	677	"	5,932	247
	2200-2300	666	"	5,827	243
	2300-2400	657	"	5,742	239
7/27/70	0001-0100	643	"	5,609	234
	0100-0200	629	"	5,476	228
	0200-0300	621	"	5,400	225
	0300-0400	615	"	5,343	223
	0400-0500	602	"	5,219	217
	0500-0600	597	"	5,172	216
	0600-2400	594	18/24	5,143	3,857
7/28-7/31/70		593	4	5,134	20,536
8/1-8/31/70		594	31	Actual	160,140
9/1-9/30/70		887	30	Actual	227,000
10/1/70	0001-0100	890	1/24	7,908	330
	0100-0200	889	"	7,900	329
	0200-0300	888	"	7,891	329
	0300-0400	887	"	7,882	328
	0400-0500	885	"	7,865	328
	0500-0600	893	"	7,935	331
	0600-0700	907	"	8,057	336
	0700-0800	929	"	8,250	344
	0800-0900	941	"	8,355	348
	0900-1000	946	"	8,399	350
TOTAL Paducah					417,209

	Hours	Actual Average MW Level	Days	Separative Capacity	Separative Work Performed
C. Portsmouth					
7/26/70	1930-2000	399	1/48	3,211	67
	2000-2100	394	"	3,164	132
	2100-2200	390	"	3,126	130
	2200-2300	385	"	3,079	128
	2300-2400	379	"	3,023	126
7/27/70	0001-0100	375	"	2,985	124
	0100-0200	373	"	2,966	124
	0200-0300	369	"	2,929	122
	0300-0400	363	"	2,872	120
	0400-0500	358	"	2,825	118
	0500-0600	354	"	2,788	116
	0600-0700	353	"	2,778	116
	0700-0800	348	"	2,731	114
	0800-2400	350	16/24	2,750	1,833
7/28 - 7/31/70		350	4	2,750	11,000
8/1 - 8/31/70		350	31	Actual	91,034
9/1 - 9/30/70		352	30	Actual	75,083
10/1/70	0001-0100	454	1/24	3,776	157
	0100-0200	459	"	3,828	160
	0200-0300	464	"	3,879	162
	0300-0400	470	"	3,941	164
	0400-0500	475	"	3,993	166
	0500-0600	478	"	4,023	168
	0600-0700	480	"	4,044	169
	0700-0800	486	"	4,106	171
	0800-0900	494	"	4,188	175
	0900-1000	498	"	4,229	176
	1000-1100	497	"	4,219	176
	1100-1200	497	"	4,219	176
Total Portsmouth					182,507
Total Three Plant Complex					822,833

A 1595

2. Separative Work Production Assuming No Reduction of Power To Benefit Consolidated Edison

	Hours	Average MW Level	Days	Separative Capacity	Separative Work Performed
A. ORGDP					
7/27/70	0001-2400	426	1	3,610	3,610
7/28 - 7/31/70		426	4	3,610	14,440
8/1 - 8/31/70		372	31	Actual	96,766
		50	31	542	16,802
9/1 - 9/30/70		421	30	Actual	109,497
		50	30	500	15,000
10/1/70	0001-0500	482	5/24	4,170	869
Total ORGDP					256,984
B. Paducah					
7/26/70	2000-2400	693	4/24	6,084	1,014
7/27 - 7/31/70		693	5	6,084	30,420
8/1 - 8/31/70		594	31	Actual	160,14[illegible]
		100	31	950	29,4[illegible]
9/1 - 9/30/70		889	30	Actual	227,6[illegible]
		100	30	876	26,280
10/1/70	0001-1000	992	10/24	8,802	3,667
Total Paducah					478,5[illegible]
C. Portsmouth					
7/26/70	1930-2400	399	9/48	3,211	602
7/27 - 7/31/70		399	5	3,211	16,055
8/1 - 8/31/70		350	31	Actual	91,034
		50	31	470	14,570
9/1 - 9/30/70		352	30	Actual	75,083
		50	30	470	14,100
10/1/70	0001-1200	399	12/24	3,211	1,606
Total Portsmouth					213,050
Total Three Plant Complex					948,605

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APPENDICES

APPENDIX I - POWER COST

1. Actual Power Cost Incurred By AEC In the Uranium Enrichment Activity During the Period of Power Reduction To Benefit Consolidated Edison

	Hours	Actual Cascade MW Power Level	Total Hours	MWH	Actual Rate Per MWH	Cost
A. ORGDP						
7/27/70	0001-0600	Various	6	2,226		
	0600-2400	345	18	6,210		
7/28 - 7/31/70		345	96	33,120		
Total July				41,556	$4.857	$ 201,837
8/1 - 8/31/70					Actual	1,246,510
9/1 - 9/30/70					Actual	1,389,836
10/1/70	0001-0500	Various	5	2,260	4.823	10,900
Total ORGDP						$ 2,849,083
B. Paducah						
7/26/70	2000-2400	Various	4	2,736		
7/27/70	0001-0600	Various	6	3,666		
	0600-2400	587	18	10,566		
7/28 - 7/31/70		586	96	56,256		
Total July				73,224	$4.455	$ 326,213
8/1 - 8/31/70					Actual	1,867,448
9/1 - 9/30/70					Actual	2,848,899
10/1/70	0001-1000	Various	10	8,840	4.691	41,468
Total Paducah						$ 5,084,028
C. Portsmouth						
7/26/70	1930-2400	Various	4½	1,634		
7/27/70	0001-0800	Various	8	2,704		
	0800-2400	327	16	5,2[illegible]		
7/28 - 7/31/70		327	96	31,392		
Total July				40,962	$4.864	$ 199,239
8/1 - 8/31/70					Actual	1,057,088
9/1 - 9/30/70					Actual	1,027,559
10/1/70	0001-1200	Various	12	5,460	2.935	16,025
Total Portsmouth						$ 2,299,911
Total Three Plant Complex						$10,233,022

2. Power Cost Assuming No Power Reduction To Benefit Consolidated Edison

	MWHs Reduced	Rate Per MWH	Cost
A. ORGDP			
July 1970			
Cost of Power Reduced	5,708	$4.845	$ 27,655
Actual Cost for Power Taken			201,837
Total July			229,492
August 1970			
Cost of Power Reduced	36,456	4.847	176,702
Actual Cost for Power Taken			1,246,510
Total August			1,423,212
September 1970			
Cost of Power Reduced	35,280	4.898	172,801
Actual Cost for Power Taken			1,389,836
Total September			1,562,637
October 1970			
Cost of Power Reduced	123	4.834	595
Actual Cost for Power Taken			10,900
Total October			11,495
Total ORGDP			$ 3,226,836
B. Paducah			
July 1970			
Cost of Power Reduced	11,662	$4.427	$ 51,628
Actual Cost for Power Taken			326,213
Total July			377,841
August 1970			
Cost of Power Reduced	72,912	4.429	322,927
Actual Cost for Power Reduced			1,867,448
Total August			2,190,375
September 1970			
Cost of Power Reduced	70,560	4.487	316,603
Actual Cost for Power Taken			2,848,899
Total September			3,165,502
October 1970			
Cost of Power Reduced	490	4.418	2,165
Actual Cost for Power Taken			41,468
Total October			43,633
Total Paducah			$ 5,777,351

	MWHs Reduced	Rate Per MWH	Cost
C. Portsmouth			
July 1970			
Cost of Power Reduced	5,785	$4.716	$ 27,282
Actual Cost for Power Taken			199,239
Total July			226,521
August 1970			
Cost of Power Reduced	36,456	4.257	155,193
Actual Cost for Power Taken			1,057,088
Total August			1,212,281
September 1970			
Cost of Power Reduced	35,280	4.312	152,127
Actual Cost for Power Taken			1,027,559
Total September			1,179,686
October 1970			
Cost of Power Reduced	299	3.325	994
Actual Cost for Power Taken			16,025
Total October			17,019
Total Portsmouth			2,635,507
Total Three Plant Complex			$11,639,694

APPENDIX 2 - Actual Fixed Operating Cost In The Uranium Enrichment Activity During Period of Power Reduction To Benefit Consolidated Edison

1970

	July	August	September	October	Total
A. ORGDP					
Cascade Operations	$120,429	$ 793,472	$ 845,282	$ 6,333	$1,765,516
Plant Test Program	31,668	171,900	317,874	1,401	522,843
Cascade Scrap Recovery	640	4,000	4,000	27	8,667
Power Distribution	17,267	104,866	110,813	789	233,735
Total ORGDP	170,004	1,074,238	1,277,969	8,550	2,530,761
B. Paducah					
Cascade Operations	103,748	642,090	734,001	8,908	1,488,747
Plant Test Program	27,063	178,971	286,150	2,078	494,262
Cascade Scrap Recovery	41	298	324	3	666
Transportation	9,595	36,001	51,494	613	97,703
Power Distribution	14,551	83,319	81,658	1,118	180,646
Total Paducah	154,998	940,679	1,153,627	12,720	2,262,024
C. Portsmouth					
Cascade Operations	192,610	1,242,017	1,232,472	18,713	2,685,812
Plant Test Program	23,120	163,956	199,830	3,391	390,297
Cascade Scrap Recovery	2,591	12,270	11,949	214	27,024
Transportation	2	449	324	0	775
Power Distribution	17,538	102,073	114,401	2,195	236,207
Total Portsmouth	235,861	1,520,765	1,558,976	24,513	3,340,115
D. AEC Direct					
Facilitating Services	3,200	34,524	22,713	255	60,692
Total AEC Direct	3,200	34,524	22,713	255	60,692
Total Cost	$564,063	$3,570,206	$4,013,285	$46,038	$8,193,592

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APPENDIX 3 - Actual Added Factor Cost In The Uranium Enrichment Activity During Period of Power Reduction To Benefit Consolidated Edison

1970

	July	August	September	October	Total
A. ORGDP					
Process Development	$ 88,364	$ 577,611	$ 566,917	$ 3,483	$1,236,375
Startup, Shutdown and Standby	1,828	10,609	13,435	82	25,954
Miscellaneous Warehousing	1,493	6,702	(1,680)	7	6,522
Withdrawal Analysis & Fabrication	1,123	2,765	1,571	18	5,477
AECOP	1,976	11,309	11,885	61	25,231
Other Related Overhead	271	2,449	6,475	34	9,229
Total ORGDP	95,055	611,445	598,603	3,685	1,308,788
B. Paducah					
Process Development	7,144	36,544	31,845	386	75,919
Startup, Shutdown and Standby	475	2,849	3,002	32	6,358
Miscellaneous Warehousing	2,637	15,657	25,020	333	43,647
Total Paducah	10,256	55,050	59,867	751	125,924
C. Portsmouth					
Process Development	25,524	139,154	126,348	2,100	293,126
Startup, Shutdown and Standby	569	3,575	2,733	102	6,979
Miscellaneous Warehousing	83	654	352	6	1,095
Withdrawal Analysis & Fabrication	2,317	2,024	3,839	86	8,257
Other Related Overhead		16	16		32
Total Portsmouth	28,493	145,423	133,279	2,294	309,489
D. AEC Direct					
Administration	49,189	284,424	320,017	3,506	657,136
Community Support	5,393	33,718	32,630	407	72,148
Security Investigations	2,911	17,920	17,342	220	38,393
Total AEC Direct	57,493	336,062	369,989	4,133	767,677
Total Cost	$191,297	$1,147,980	$1,161,738	$10,863	$2,511,878

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APPENDIX 4 - Performance Estimates For The Gaseous Diffusion Plants

ORGDP		Portsmouth		Paducah	
Site Power Level, MW	Separative Capacity SWU per day	Site Power Level, MW	Separative Capacity SWU per day	Site Power Level, MW	Separative Capacit SWU per day
1,774	13,400	2,100	14,560	2,647	20,200
1,700	13,200	2,000	14,540	2,500	19,870
1,600	12,750	1,900	14,350	2,400	19,390
1,500	12,225	1,800	14,050	2,300	18,820
1,400	11,600	1,700	13,580	2,200	18,210
1,300	10,910	1,600	13,070	2,000	16,890
1,200	10,180	1,500	12,470	1,800	15,440
1,100	9,410	1,400	11,830	1,600	13,900
900	7,770	1,300	11,120	1,400	12,290
700	6,050	1,100	9,590	1,200	10,625
500	4,350	900	7,880	800	7,120
400	3,350	700	6,140	700	6,150
300	2,200	500	4,250	600	5,200
		400	3,220		
		350	2,750		
		300	2,200		

A 1603

Contract No. AT-(40-1)-1

POWER AGREEMENT

AGREEMENT dated this 15th day of October, 1952, by and between OHIO VALLEY ELECTRIC CORPORATION, a corporation organized under the laws of the State of Ohio (hereinafter called "Corporation"), and the UNITED STATES OF AMERICA, acting by and through the UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter called "AEC" which term as used herein shall be deemed to include the duly authorized representative or representatives of the United States Atomic Energy Commission).

WITNESSETH THAT:

WHEREAS, AEC proposes to construct a new project (hereinafter referred to as the "Project") near Portsmouth, Ohio, and will require at the site of the Project electric power and energy in a large amount which is not now available; and

WHEREAS, in order to supply all of such electric power and energy, the companies named below (hereinafter called the "Participating Companies") have caused Corporation to be organized for the purpose of constructing and operating power generating facilities within reasonable transmission distance of the Project and certain related transmission facilities, such construction and operation to be effected either directly by Corporation or indirectly through Indiana-Kentucky Electric Corporation, a corporation organized under the laws of the State of Indiana as a wholly owned subsidiary corporation of Corporation, or by other mutually agreeable subsidiary corporations of Corporation (for all purposes of this Agreement the term "Corporation" shall include each such subsidiary unless the context otherwise requires) and the Participating Companies have agreed, subject to the receipt of certain authorizations or approvals by regulatory agencies, to make available to Corporation equity capital, in an amount presently estimated not to exceed $20,000,000 in the aggregate, in the proportions indicated in the tabulation below:

Name of Participating Company	Equity Participation Ratio—Per Cent
American Gas and Electric Company	37.8
The Cincinnati Gas & Electric Company	9.0
Columbus and Southern Ohio Electric Company	4.1
The Dayton Power and Light Company	5.1
Kentucky Utilities Company	2.5
Louisville Gas and Electric Company	7.0
Ohio Edison Company	16.5
Southern Indiana Gas and Electric Company	1.5
The Toledo Edison Company	4.0
The West Penn Electric Company	12.5

and

WHEREAS, Corporation proposes to issue from time to time to the Participating Companies, as required, shares of the capital stock of Corporation for cash at the par value

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thereof of $100 per share in amounts presently estimated not to exceed the aggregate number of shares of such capital stock indicated in the tabulation below:

Name of Participating Company	Aggregate Number of Shares of Corporation to be Acquired
American Gas and Electric Company	75,600
The Cincinnati Gas & Electric Company	18,000
Columbus and Southern Ohio Electric Company	8,200
The Dayton Power and Light Company	10,200
Kentucky Utilities Company	5,000
Louisville Gas and Electric Company	14,000
Ohio Edison Company	33,000
Southern Indiana Gas and Electric Company	3,000
The Toledo Edison Company	8,000
The West Penn Electric Company	25,000

and

WHEREAS, arrangements are being made on behalf of Corporation with several institutional investors and banks pursuant to which such institutional investors and banks will lend funds to Corporation, hereinafter referred to as "indebtedness," for that part of the required initial capital of Corporation not represented by the equity capital described above, it being anticipated that such indebtedness will be issued from time to time as required; and

WHEREAS, Corporation will enter into the contracts hereinafter referred to in Section 1.03 hereof with the companies named below (hereinafter called the "Sponsoring Companies") under which contracts the respective rights and obligations of the Sponsoring Companies will, subject to certain conditions to be expressed therein, be established in the proportions indicated in the tabulation below:

Name of Sponsoring Company	Power Participation Ratio—Per Cent
Appalachian Electric Power Company (1)	15.2
The Cincinnati Gas & Electric Company	9.0
Columbus and Southern Ohio Electric Company	4.1
The Dayton Power and Light Company	5.1
Indiana & Michigan Electric Company (1)	7.6
Kentucky Utilities Company	2.5
Louisville Gas and Electric Company	7.0
Monongahela Power Company (2)	3.5
Ohio Edison Company	14.5
The Ohio Power Company (1)	15.0
Pennsylvania Power Company (3)	2.0
The Potomac Edison Company (2)	2.0
Southern Indiana Gas and Electric Company	1.5
The Toledo Edison Company	4.0
West Penn Power Company (2)	7.0

(1) Subsidiary of American Gas and Electric Company.

(2) Subsidiary of The West Penn Electric Company.

(3) Subsidiary of Ohio Edison Company.

and

WHEREAS, this Agreement is authorized by and executed pursuant to the Atomic Energy Act of 1946 and the Supplemental Appropriation Act, 1953, in the interest of the common defense and security;

NOW, THEREFORE, THIS AGREEMENT WITNESSETH:

ARTICLE I

FACILITIES TO BE PROVIDED

SECTION 1.01 *Generating Stations.* Corporation shall expeditiously undertake or cause to be undertaken the design, purchase and construction, and operation and maintenance, of two steam-electric generating stations; viz.:

(a) One generating station hereinafter called "Ohio Station" consisting of five turbo-generators each with an expected capability of 200,000 kw, as described in Appendix "I" attached hereto and made a part hereof, with all other necessary equipment, at a location on the Ohio River between Portsmouth and Marietta, Ohio.

(b) One generating station hereinafter called "Indiana Station" consisting of six turbo-generators each with an expected capability of 200,000 kw, as described in Appendix "I", with all other necessary equipment, at a location on the Ohio River between New Albany and Lawrenceburg, Indiana.

The two above-described generating stations, including lands and land rights employed in connection therewith, are hereinafter called "project generating stations."

Corporation shall exert its best efforts to have the generating units in the two project generating stations ready for commercial operation on the following dates:

Ohio Station		**Indiana Station**	
1st Unit	3/1/55	1st Unit	1/1/55
2nd Unit	6/1/55	2nd Unit	4/15/55
3rd Unit	9/15/55	3rd Unit	8/1/55
4th Unit	1/1/56	4th Unit	11/1/55
5th Unit	4/1/56	5th Unit	2/15/56
		6th Unit	6/1/56

Preliminary operation of each unit expected one month prior to commercial operating dates.

SECTION 1.02 *Transmission and General Plant Facilities.* Corporation shall expeditiously undertake or cause to be undertaken the design, purchase and construction, and operation and maintenance, of the necessary transmission and general plant facilities as described in Appendix "I", to deliver the electric energy produced at the project generating stations to the point of delivery (as defined in Section 2.06) for use at the Project and, except as provided in Section 5.01, the metering facilities required for billing purposes located at the Project. Such facilities, including lands and land rights used or useful in connection therewith, are hereinafter called "project transmission facilities." Corporation shall use its best efforts to have the project transmission facilities available for commercial operation on the following dates:

Ohio Station—Project double circuit line to X-530 Substation	8/1/54
Tanners Creek—Switching Station double circuit line	10/1/54
Switching Station—Project double circuit line to X-530 Substation	10/1/54
Indiana Station—Tanners Creek double circuit line	12/1/54
Indiana Station—Switching Station double circuit line	4/1/55
Ohio Station—Project double circuit line to X-533 Substation	6/1/55
Switching Station—Project double circuit line to X-533 Substation	8/1/55

SECTION 1.03 *Interconnections with Sponsoring Companies.* Corporation shall establish or cause to be established interconnections between the project generating stations and/or the project transmission facilities and the systems of certain of the Sponsoring Companies, directly or indirectly, by means of which there will be afforded additional security of service to the Project from the systems of Sponsoring Companies, and an outlet for power and energy produced at the project generating stations and from time to time not needed in the operation of the Project. Corporation represents that it will enter into contracts with the Sponsoring Companies (a) to provide power to Corporation over such interconnections for resale to AEC during the construction period prior to full scale operation (as defined in Section 2.03) of the project generating stations, (b) to provide power to Corporation after the beginning of full scale operation over such interconnections for the purpose of supplying supplemental power (as defined in Section 2.04) for delivery to AEC whenever required due to maintenance or emergency outages of Corporation's facilities, and (c) to make available from the project generating stations to the Sponsoring Companies or others power that from time to time is not needed by Corporation to furnish the amount of power to which AEC is entitled hereunder.

SECTION 1.04 *Installation of Line Terminal Positions at AEC Substations.* AEC shall install at its substations at the Project (hereinafter called "AEC substations"), in addition to the metering facilities described in Section 5.01, line terminal positions including circuit breakers and related equipment for switching and for protection and operation of the project transmission facilities terminating at the AEC substations. AEC shall also install at one of the AEC substations line terminal positions including circuit breakers and related equipment for switching and for protection and operation of such 138 kv transmission lines terminating at one of the AEC substations as shall be built by certain of the Sponsoring Companies with the approval of AEC. Such line terminal positions, circuit breakers and related equipment shall be free of any rental or other charges.

SECTION 1.05 *Design, Operation and Maintenance of Line Terminal Positions and Related Equipment.* The Corporation and AEC shall cooperate, to the extent required, in the coordination of design and operation of the line terminal positions, circuit breakers, and system relay protection and communication and telemetering equipment provided by Corporation with similar equipment provided by AEC at the Project, so as to obtain reliable and satisfactory performance of such equipment. Corporation, to the extent requested by AEC, shall make necessary tests, adjustments or settings, and repairs to AEC-owned protection relays, communication and telemetering equipment, and such other related equipment located at the AEC substations as AEC may install for switching and for protection and operation of Corporation's or Sponsoring Companies' transmission lines terminating at the AEC substations. AEC shall reimburse Corporation for labor, material and other expenses (including applicable overhead costs) incurred by Corporation in providing such services.

SECTION 1.06 *Assistance in Securing Priorities.* Upon request by Corporation, AEC shall use its best efforts to aid Corporation and Sponsoring Companies to obtain such priorities as may be necessary for the expeditious construction and operation of the facilities described in Sections 1.01 and 1.02 and of such generating and transmission facilities of the Sponsoring Companies as AEC deems necessary for the supply of interim power and for additional security of service to the Project.

SECTION 1.07 *Ownership of Facilities.* All facilities provided by Corporation in accordance with Sections 1.01, 1.02 and 3.06, including replacements thereof, shall be the responsibility and remain the property of Corporation, and all facilities beyond the point of delivery specified in Section 2.06 shall be the responsibility and remain the property of AEC with the exception of Corporation's meters installed at the AEC substations, which shall be the responsibility and remain the property of Corporation.

SECTION 1.08 *Easements on Project Property.* AEC shall grant or cause to be granted to Corporation and to the Sponsoring Companies easements for a term of fifty years, to enter upon and use such Government-owned land on the Project property as may be necessary for the construction, operation and maintenance of Corporation's or any Sponsoring Company's transmission facilities and for interconnection with other systems. The exact locations, extent of, and other pertinent details with respect to the easements shall be mutually agreed upon in writing by AEC and Corporation or such Sponsoring Company. AEC reserves the right to order removal of any such facilities to another location on the Project property for the convenience of AEC, but in such event AEC shall pay the net cost of such removal and relocation and shall grant to Corporation or to such Sponsoring Company similar easements to use such lands as may be necessary in connection with the relocation. The rights to be granted by AEC to Corporation and Sponsoring Companies shall be free of any rental or other charges. The exercise of such rights shall be subject to such security regulations, rules or instructions as AEC may issue from time to time.

SECTION 1.09 *Rights of Access.* AEC shall grant or cause to be granted to Corporation and any Sponsoring Company all rights in or on the Project property, including rights of ingress or egress, necessary for Corporation to fulfill its responsibilities hereunder for the installation, testing, operation, maintenance and replacement of facilities or equipment in or on the Project property. Upon the termination or cancellation of this Agreement, Corporation or any Sponsoring Company owning facilities or equipment installed upon or in the Project property may, at its respective option, and at its expense, remove any of its facilities from AEC's property.

ARTICLE II

POWER SUPPLY

SECTION 2.01 *Power Requirements.* AEC estimates its requirements for electric power and energy for the Project at the times and amounts set forth in Columns I and II below. Corporation will be ready and able to supply or cause to be supplied these requirements in accordance with the provisions of this Agreement.

Column I	Column II
Date	Power Requirements Demand in Megawatts
10/1/52	0.8
11/1/52	1.0
12/1/52	1.2
1/1/53	1.5
2/1/53	1.8
3/1/53	2.1
4/1/53	2.6
5/1/53	3.3
6/1/53	7.9
7/1/53	16.1
8/1/53	20.5
9/1/53	21.7
10/1/53	22.8

Column I Date	Column II Power Requirements Demand in Megawatts
11/1/53	23.9
12/1/53	24.8
1/1/54	25.4
2/1/54	25.8
3/1/54	26.1
4/1/54	26.4
5/1/54	26.6
6/1/54	26.8
7/1/54	27
8/1/54	27
8/15/54	102
10/1/54	182
11/15/54	262
12/15/54	302
1/1/55	382
2/1/55	457
3/1/55	517
4/1/55	567
4/15/55	597
5/1/55	647
6/1/55	689
7/1/55	723
7/15/55	742
8/1/55	881
8/15/55	895
10/1/55	1025
10/15/55	1036
12/1/55	1174
2/1/56	1310
3/15/56	1444
4/15/56	1554
5/1/56	1556
5/15/56	1666
6/1/56	1667
6/15/56	1760
9/1/56	1781
10/1/56	1790
11/1/56	1800

SECTION 2.02 *Interim Power.* Power and energy which will be required by AEC from Corporation for construction and operation purposes at the Project, from sources other than the Corporation's project generating stations, during the period of construction of the project,

generating stations, is hereinafter called "interim power." AEC shall pay Corporation for interim power delivered at the point of delivery at the following rates:

Demand Charge	$1.30 per kilowatt per month of measured maximum kilowatt demand.
Energy Charge	6 mills per kilowatt-hour.

The maximum amount of interim power that Corporation shall be obligated to supply to AEC at any time is 465,000 kw.

The maximum demand of interim power supplied prior to commercial operation of the first generating unit of the project generating stations shall be measured, in accordance with Section 5.02, directly by meters at the point of delivery. After such time such maximum demand of interim power shall be computed as the positive remainder obtained by subtracting from the total net metered demand at the point of delivery the amount of permanent power (as defined in Section 2.03) delivered to AEC. The number of kwh supplied as interim power shall be similarly determined.

SECTION 2.03 *Permanent Power.* The term "full scale operation" used herein shall mean the operation of Corporation's project generating stations after the date on which all eleven generating units shall have been placed in commercial operation. Prior to full scale operation Corporation shall make available to AEC as permanent power for use at the Project the entire net available capacity of the project generating stations, and the energy associated therewith, less transmission losses. During full scale operation, but prior to any reduction of AEC contract demand under Section 6.03, Corporation shall make available to AEC as permanent power for use at the Project the entire net available capacity of the project generating stations (including capacity for which AEC does not pay demand charges) and the energy associated therewith, to the extent that the same as reduced by transmission losses does not exceed the AEC contract demand (as defined in Section 2.05) at the point of delivery.

Whenever, prior to any reduction of AEC contract demand under Section 6.03, the total net metered power and energy delivered to AEC at the point of delivery for any clock hour, plus the transmission losses applicable thereto from the 330 kv busses of the project generating stations to the point of delivery, do not exceed the total net power and energy generated at the project generating stations as of their 330 kv busses for such hour, then the total net metered power and energy delivered to AEC at the point of delivery for such hour, shall be classified as, and are herein referred to as "permanent power" and "billing kwh of permanent power", respectively.

Whenever, prior to any reduction of AEC contract demand under Section 6.03, the total net metered power and energy delivered to AEC at the point of delivery for any clock hour, plus the transmission losses applicable thereto from the 330 kv busses of the project generating stations to the point of delivery, exceed the total net power and energy generated at the project generating stations as of their 330 kv busses for such hour, then the total net power and energy generated at the project generating stations as of their 330 kv busses, less the transmission losses applicable thereto from the 330 kv busses to the point of delivery, shall be classified as, and are herein referred to as, "permanent power", and "billing kwh of permanent power", respectively.

The aggregate of the billing kwh of permanent power for all the hours of a month shall be the billing kwh of permanent power for such month.

The transmission losses from the project generating stations to the point of delivery applicable to power and energy generated at the project generating stations shall be computed by methods and procedures mutually agreed upon.

Corporation shall arrange with the Sponsoring Companies that, in the event of outage of one or more of the elements of the project transmission facilities between the project generating stations and the point of delivery, the Sponsoring Companies shall make available any capacity of their transmission systems that they determine is not at such time needed by them to supply their customers under commitments made prior thereto, and Corporation shall use such transmission capacity, for the period during which such capacity is not so needed by the Sponsoring Companies, to the extent required to transmit permanent power to the point of delivery, in which event appropriate mutually satisfactory adjustments shall be made for the resulting changes in the transmission losses occurring in the project transmission facilities and the systems of the Sponsoring Companies.

AEC shall pay Corporation for all permanent power at rates provided in Article III.

SECTION 2.04 *Supplemental Power.*

1. Whenever, during full scale operation, but prior to any reduction of the AEC contract demand under Section 6.03, the available generating capacity and the energy associated therewith furnished by Corporation to AEC pursuant to Section 2.03 is insufficient to supply the part of the AEC contract demand which is then being demanded by AEC, Corporation shall furnish, from sources other than the project generating stations, additional generating capacity and the energy associated therewith to AEC at the point of delivery to make up for such insufficiency in any amount necessary up to a number of kilowatts which, when added to the number of kilowatts of generating capacity at the project generating stations for which AEC does not pay demand charges, will equal fifteen per cent of the sum of (i) the AEC contract demand and (ii) the transmission losses thereon from the 330 kv busses of the project generating stations.

2. The additional generating capacity and the energy associated therewith furnished to AEC pursuant to paragraph 1. above is called "supplemental power." Corporation shall make no demand charge to AEC for such additional generating capacity so furnished. However, AEC shall pay Corporation for the energy associated therewith in accordance with the plan and rate in paragraph 3. below.

3. Whenever, during full scale operation, but prior to any reduction of the AEC contract demand under Section 6.03, the total net metered kwh delivered to AEC at the point of delivery for any clock hour is in excess of the billing kwh of permanent power delivered for such hour, such excess, subject to paragraph 4. of this Section 2.04, shall be classified as, and is herein referred to as, "delivered kwh of supplemental energy". The aggregate of the delivered kwh of supplemental energy for all the hours of a month shall be the delivered kwh of supplemental energy for such month. To the delivered kwh of supplemental energy so computed for such month shall be added the number of kwh of transmission losses applicable thereto from the points of generation thereof on the systems of the Sponsoring Companies and others to the point of delivery and the sum so computed is herein called the "billing kwh of supplemental energy." Such transmission losses shall be computed on an incremental loss basis by such methods and procedures as may be mutually agreed upon. For the billing kwh of supplemental energy, AEC shall pay Corporation an amount equal to the "out-of-pocket costs," as defined in Appendix II.

4. Whenever the permanent power and supplemental power and the energy associated therewith furnished by Corporation to AEC are not sufficient to supply the part of the AEC contract demand which is then being demanded by AEC, Corporation will use its best efforts to furnish additional generating capacity and associated energy to AEC at such rate or rates as may be quoted at such time by Corporation.

SECTION 2.05 *Contract Demand and Change in Load.*

1. The amount of permanent power to be supplied by Corporation at the point of delivery under this Agreement during full scale operation is herein referred to as the "AEC contract demand" and shall be 1,800,000 kilowatts, unless reduced under Section 6.03.

erating stations and the point of delivery, the Sponsoring Companies shall make available any capacity of their transmission systems that they determine is not at such time needed by them to supply their customers under commitments made prior thereto, and Corporation shall use such transmission capacity, for the period during which such capacity is not so needed by the Sponsoring Companies, to the extent required to transmit permanent power to the point of delivery, in which event appropriate mutually satisfactory adjustments shall be made for the resulting changes in the transmission losses occurring in the project transmission facilities and the systems of the Sponsoring Companies.

AEC shall pay Corporation for all permanent power at rates provided in Article III.

SECTION 2.04 *Supplemental Power.*

1. Whenever, during full scale operation, but prior to any reduction of the AEC contract demand under Section 6.03, the available generating capacity and the energy associated therewith furnished by Corporation to AEC pursuant to Section 2.03 is insufficient to supply the part of the AEC contract demand which is then being demanded by AEC, Corporation shall furnish, from sources other than the project generating stations, additional generating capacity and the energy associated therewith to AEC at the point of delivery to make up for such insufficiency in any amount necessary up to a number of kilowatts which, when added to the number of kilowatts of generating capacity at the project generating stations for which AEC does not pay demand charges, will equal fifteen per cent of the sum of (i) the AEC contract demand and (ii) the transmission losses thereon from the 330 kv busses of the project generating stations.

2. The additional generating capacity and the energy associated therewith furnished to AEC pursuant to paragraph 1. above is called "supplemental power." Corporation shall make no demand charge to AEC for such additional generating capacity so furnished. However, AEC shall pay Corporation for the energy associated therewith in accordance with the plan and rate in paragraph 3. below.

3. Whenever, during full scale operation, but prior to any reduction of the AEC contract demand under Section 6.03, the total net metered kwh delivered to AEC at the point of delivery for any clock hour is in excess of the billing kwh of permanent power delivered for such hour, such excess, subject to paragraph 4. of this Section 2.04, shall be classified as, and is herein referred to as, "delivered kwh of supplemental energy". The aggregate of the delivered kwh of supplemental energy for all the hours of a month shall be the delivered kwh of supplemental energy for such month. To the delivered kwh of supplemental energy so computed for such month shall be added the number of kwh of transmission losses applicable thereto from the points of generation thereof on the systems of the Sponsoring Companies and others to the point of delivery and the sum so computed is herein called the "billing kwh of supplemental energy." Such transmission losses shall be computed on an incremental loss basis by such methods and procedures as may be mutually agreed upon. For the billing kwh of supplemental energy, AEC shall pay Corporation an amount equal to the "out-of-pocket costs," as defined in Appendix II.

4. Whenever the permanent power and supplemental power and the energy associated therewith furnished by Corporation to AEC are not sufficient to supply the part of the AEC contract demand which is then being demanded by AEC, Corporation will use its best efforts to furnish additional generating capacity and associated energy to AEC at such rate or rates as may be quoted at such time by Corporation.

SECTION 2.05 *Contract Demand and Change in Load.*

1. The amount of permanent power to be supplied by Corporation at the point of delivery under this Agreement during full scale operation is herein referred to as the "AEC contract demand" and shall be 1,800,000 kilowatts, unless reduced under Section 6.03.

2. AEC shall have the right at any time to sell or provide power and energy to which it is entitled hereunder to its contractors, tenants and concessionaires for their consumption at or in the vicinity of the Project.

3. AEC shall have the right to sell or dispose of any part of the power and energy to which it is entitled hereunder, at any time during the term of this Agreement, to any successor operator of the Project or to any other agency of the United States Government for consumption at the site of the Project.

4. Except as hereinafter provided, AEC shall have the right, at any time during the term of this Agreement, to the extent that power and energy shall no longer be required at the Project, to transfer all or part of the power and energy to which AEC is entitled hereunder in a block or blocks not less than 20,000 kw in any one case to supply a new Governmental requirement at any United States Government installation for consumption in operations at such installation by transfer or displacement, or if arrangements for transfer or displacement cannot be mutually agreed upon, by direct transmission or otherwise from the Project. In the event that AEC desires to exercise such right, it shall give notice of its intention to Corporation. If arrangements are mutually agreed upon for such transfer or displacement over transmission facilities provided by Corporation, such power and energy shall be delivered by Corporation to the point agreed upon at the rates provided in this Agreement, adjusted to reflect any change in cost to Corporation resulting from such method of delivery, and for such period as may be mutually agreed upon. If, however, within 60 days after receipt of the notice provided for in this paragraph, Corporation undertakes to release AEC from liability with respect to all further charges payable by AEC with respect to such power and energy as of (a) one year after such notice, or (b) the day on which such power and energy could have been used at such United States Government installation, whichever is later, or (c) as of such earlier date, if any, when Corporation can absorb such power and energy in its system or in the systems of Sponsoring Companies, then Corporation shall, as of the date when AEC is released from such liability, have the right to dispose of such power and energy in any manner it may determine.

SECTION 2.06 *Characteristics of Supply and Point of Delivery.* All electric service delivered hereunder shall be three phase, 60-cycle at a nominal voltage of 330 kv except that any service delivered over the transmission lines of the Sponsoring Companies referred to in Section 1.04 shall be at a nominal voltage of 138 kv. Corporation and AEC shall cooperate with each other to regulate the voltage at the AEC 330 kv substation busses at the Project within plus or minus 5 per cent. Electric energy shall be delivered at the point of division of ownership of property of Corporation and AEC which shall be the substation side of the dead-end insulator assemblies on the AEC 330 kv and 138 kv bus structures and such points taken collectively are herein called the "point of delivery," except that any wave traps, potential devices, or current transformers, together with any required connection facilities shall be the property of AEC even though connection is made beyond dead-end insulators. The dead-end insulator assembly and dead-end conductor clamp shall be the property of Corporation. AEC shall notify Corporation promptly of the location of such structures and equipment as soon as such location has been determined.

SECTION 2.07 *Power Factor.* AEC shall provide power factor corrective synchronous condenser or other reactive capacity sufficient to correct the net power factor of the load at the point of delivery to approximately unity for interim power deliveries and to not less than 94.7 per cent lagging for permanent power deliveries. AEC and Corporation shall cooperate with each other and with Sponsoring Companies in the operation of such power factor corrective equipment of AEC and in the operation of facilities of Corporation and the Sponsoring Companies to the end that mutually satisfactory power factor conditions shall be maintained.

ARTICLE III

RATES FOR PERMANENT POWER

SECTION 3.01. *Base Rate for Permanent Power during Full Scale Operation.* The base rate for permanent power, furnished at the point of delivery, for the AEC contract demand during full scale operation, shall consist of:

(a) Demand Charge

$1.476 per kilowatt month (equivalent to $17.714 per kilowatt year) and

(b) Energy Charge

1.702 mills per kilowatt-hour (equivalent to $14.164 per kilowatt year at a fuel cost of 17½¢ per million Btu for delivery at 95% load factor).

The "base monthly demand charge" shall consist of $1.476 multiplied by the AEC contract demand. Such base monthly demand charge shall be subject to adjustment as set forth in Section 3.04. The base monthly demand charge, as so adjusted, shall constitute the minimum monthly charge under this Agreement during full scale operation.

The "base monthly energy charge" shall be 1.702 mills per kilowatt-hour multiplied by the billing kwh of permanent power (as defined in Section 2.03). Such base monthly energy charge will be subject to adjustment as set forth in Section 3.03.

SECTION 3.02 *Rate for Permanent Power Prior to Full Scale Operation.* During the period between the beginning of commercial operation of the first unit of Corporation's project generating stations and the beginning of full scale operation, the rate for permanent power furnished at the point of delivery shall consist of:

(a) Monthly Demand Charge

An amount equal to the sum of the following items for the month or portion thereof included in such period prior to full scale operation (i) the total fixed charges of Corporation of the nature described in paragraph 3.(a) of Section 3.04 (including, in lieu of the amount specified in clause (iii) of said paragraph 3.(a) an amount equal to 2½% on an annual basis of the aggregate amount in Corporation's Accounts 301 to 393, inclusive, of the Uniform System of Accounts prescribed by the Federal Power Commission for Public Utilities and Licensees, as in effect on July 1, 1952 (hereinafter called the "Uniform System of Accounts")); (ii) the total operating expenses of Corporation of the nature described in paragraph 3.(b) of Section 3.04; (iii) the total amount of expenses of Corporation for taxes and insurance of the nature described in paragraph 3.(c) of Section 3.04, and (iv) an amount computed as provided in paragraph 3.(d) of Section 3.04 upon that portion of the aggregate par value of the capital stock of Ohio Valley Electric Corporation then issued and outstanding which is properly allocable, as determined upon a basis consistent with generally accepted accounting principles, to the aggregate amount in Corporation's Accounts 301 to 393, inclusive, of the Uniform System of Accounts and working capital required for the operation of the facilities then in commercial operation. Such amount shall be decreased by an amount equal to the aggregate of the credits required for such month pursuant to the provisions of paragraph 6. of Section 3.08.

(b) Monthly Energy Charge

An amount equal to a base energy rate of 1.702 mills per kwh multiplied by the billing kwh of permanent power. Such monthly energy charge shall be subject to adjustment as set forth in Section 3.03.

SECTION 3.03 *Adjustment of Energy Charge.* The base monthly energy charge specified in Section 3.01 and the monthly energy charge specified in Section 3.02 shall be adjusted for each month to an amount equal to the product of the total net charges for such month at the project generating stations to Account 703 (Fuel) of the Uniform System of Accounts, and the ratio of (a) the billing kwh of permanent power for such month plus the transmission losses thereon from the 330 kv busses of the project generating stations to (b) the total net kwh generated at the project generating stations during such month corrected for losses to the 330 kv busses thereof. Such losses shall be determined by such methods and procedures as may be mutually agreed upon.

SECTION 3.04 *Adjustment of Base Monthly Demand Charge.* The base monthly demand charge specified in Section 3.01 shall be adjusted for each month in the following manner:

1. The term "established capability" of the project generating stations as used herein means the total net capability of the project generating stations (with all eleven generating units operating) at their 330 kv busses, determined in accordance with the procedures described in Appendix III.

2. The term "AEC capacity ratio" as used herein means the ratio of (a) the sum of (i) the AEC contract demand, (ii) the kw transmission losses thereon from the 330 kv busses of the project generating stations, determined by such methods and procedures as may be mutually agreed upon, and (iii) fifteen (15) per cent of the sum of items (i) and (ii) as an allowance for reserve generating capacity to (b) the established capability of the project generating stations; provided, however, that the AEC capacity ratio shall not exceed unity.

3. As soon as practicable after the close of each calendar month the following components of costs of Corporation applicable to the ownership, operation and maintenance of the facilities described in Sections 1.01, 1.02, 3.06 and 3.07 for such month shall, except as otherwise provided in Section 3.07, be determined and recorded:

(a) Component (A) shall consist of fixed charges made up of (i) the amounts of interest properly chargeable to Accounts 530, 534 and 535, less the amount credited to Account 536, of the Uniform System of Accounts. (ii) the amounts of amortization of debt discount or premium and expenses properly chargeable to Accounts 531 and 532, and (iii) an amount equal to the sum of (I) the applicable amount of the debt amortization component for such month required to retire the total amount of indebtedness of Corporation issued and outstanding at the beginning of full scale operation on a twenty-five year semi-annual payment level debt sinking fund basis (computed with an interest component of 3¾% per annum from the beginning of full scale operation), (II) the amortization requirement for such month in respect of indebtedness of Corporation issued after the beginning of full scale operation in respect of facilities constructed pursuant to Section 3.06; and (III) the allowance for depreciation of facilities referred to in Section 3.06.

(b) Component (B) shall consist of the total operating expenses for labor, maintenance, materials, supplies, services, administrative and general expense, etc., properly chargeable to the Operating Expense Accounts of the Uniform System of Accounts (exclusive of Accounts 703, 738, 739, 785, 786, 787, 788, 789, and 798, and exclusive of any expenses for which AEC reimburses Corporation under Section 1.05).

(c) Component (C) shall consist of the total expenses for taxes, including all taxes on income, and insurance (other than the taxes and insurance referred to in clauses (x) and (y) below) properly chargeable to Accounts 507 and 798 of the Uniform System of Accounts:

(x) the cost of any taxes that are now or may hereafter be levied based on revenue, energy generated or sold or on any other basis capable of direct distribution shall be allocated directly to AEC and Corporation in amounts reflecting the proper share of each, and AEC shall pay to Corporation its share thereof; and

(y) the cost of any insurance carried solely for the benefit of AEC at its request, shall be paid for solely by AEC unless otherwise agreed upon from time to time by the parties hereto.

(d) Component (D) shall consist of an amount which, after provision shall have been made for all of the costs specified in the foregoing three components (including all taxes on income applicable to all amounts payable to Corporation by AEC and others), shall equal on an annual basis eight per cent of the aggregate par value of the capital stock of Ohio Valley Electric Corporation issued and outstanding.

4. The base monthly demand charge for such month shall be adjusted to equal the aggregate of (i) the product of the total of the costs specified in paragraph 3. of this Section 3.04 multiplied by the AEC capacity ratio in effect for such month, plus or minus (ii) the net amount of charges or credits required for such month pursuant to the provisions of paragraph 5. of Section 3.08.

5. After the close of each calendar year a further adjustment shall be made by multiplying the total of the costs specified in paragraph 3. of this Section 3.04 for the entire year by the average AEC capacity ratio for such year, weighted with respect to the periods of time during which such AEC capacity ratios were in effect, and crediting or charging AEC, as the case may be, with the difference between the resulting product and the aggregate of the amounts computed for each month of such year pursuant to clause (i) of paragraph 4. of this Section 3.04.

SECTION 3.05 *Capital of Corporation.* The total capital of Corporation made up of outstanding capital stock and indebtedness shall not exceed Corporation's requirements for (a) the cost of Corporation's facilities described in Sections 1.01 and 1.02, which shall include all components of cost of organization of Corporation and construction of such facilities, including interest during construction, as provided in Accounts 301 through 393 and the Instructions—Electric Plant Accounts of the Uniform System of Accounts, (b) the cost of any additional project facilities that may be installed pursuant to Section 3.06 hereof, (c) that part of the cost of replacements as provided for in Section 3.07 not borne by AEC, (d) costs incident to financing, and (e) necessary working capital. It is the intent of the parties hereto that working capital be kept to a minimum consistent with the requirements of Corporation to enable Corporation to carry on its business of operating the facilities referred to in this Section 3.05 with reasonable smoothness and dispatch.

The initial amount of capital stock of Corporation to be issued prior to full scale operation shall not exceed (i) an aggregate par value of $20,000,000 if the initial indebtedness of Corporation issued prior to full scale operation does not exceed $420,000,000, or (ii) an aggregate par value equal to 5% of the total initial capital (consisting of indebtedness of Corporation and its capital stock) issued prior to full scale operation if such initial indebtedness of Corporation exceeds $420,000,000.

SECTION 3.06 *Additional Facilities.* It is recognized by the parties hereto that it may be desirable, after the beginning of full scale operation, for Corporation to install facilities, in addition to those now contemplated, and to acquire spare parts for the purpose of supplying the AEC contract demand and, in such event, Corporation shall be entitled to install such facilities as shall be approved by AEC. Any facilities so installed shall constitute a part of the project generating stations or the project transmission facilities, as the case may be. To the extent that any such facilities are installed and spare parts are acquired by Corporation with the approval of AEC from the proceeds of securities which do not, by their terms, require their retirement, appropriate allowance for the depreciation of such facilities and spare parts shall be included in the Component specified in paragraph 3.(a) of Section 3.04.

SECTION 3.07 *Reimbursement for Cost of Replacements.* AEC shall reimburse Corporation for the "weighted average AEC capacity ratio" of the cost of replacements (except the costs of removals and relocations provided for in Section 1.08) chargeable to property and plant made by Corporation during any month or prior thereto (and not previously reimbursed) to the extent that such reimbursements do not exceed an amount, cumulative over the term of this Agreement, equal to the "weighted average AEC capacity ratio" of ¼ of 1% annually of the cost of Corporation's facilities referred to in Section 1.01, 1.02 and 3.06, such cumulative amount to be increased or decreased, however, by that percentage by which the total cost of all replacements made during or prior to such month exceeds or is less than the original total cost, at the time of installation, of all units of property replaced during or prior to such month. No replacement costs paid for out of the proceeds of insurance, or out of amounts recovered from third parties, shall be included in the determination of the cost of replacements. For the purposes of this Section 3.07, the "weighted average AEC capacity ratio" shall mean (a) unity prior to full scale operation, and (b) during full scale operation, the average of the AEC capacity ratios in effect from the beginning of full scale operation to the first day of such month, weighted with respect to the periods of time that such AEC capacity ratios were in effect. If Corporation is unable to secure a satisfactory ruling to the effect that amounts paid by AEC in reimbursement of replacement costs do not constitute taxable income to Corporation, or in case such ruling once obtained shall be reversed or rescinded, then AEC shall pay to Corporation such amount, in lieu of the amounts to be paid as above provided, which, after provision for all taxes on income shall equal the costs of the replacements reimbursable by AEC to Corporation as above provided and any additional amount so paid by AEC shall not be considered in computing the foregoing cumulative limitation. It is the intent of the parties hereto that AEC shall not pay to Corporation with respect to the costs of replacements any amount of the costs specified in paragraph 3.(a) and paragraph 3.(d) of Section 3.04.

The amounts reimbursed by AEC to Corporation for replacements shall be accounted for on the books of Corporation in a special balance sheet account provided for such purpose.

The term "cost of replacements" shall include all components of cost plus removal expenses, less salvage.

The prior approval of AEC shall be obtained for any replacement of a unit of property at a cost in excess of $100,000, provided that, if any such replacement shall be necessary under any indenture or other agreement pursuant to which indebtedness of Corporation shall have been issued or incurred in order to prevent a default thereunder, no such approval shall be required.

When the aggregate amount of the cost of replacements paid or payable by AEC equals such adjusted cumulative amount, or at the end of the tenth year after the beginning of full scale operation, whichever is earlier, the parties hereto agree jointly to examine and review, promptly at such time and at intervals of five years thereafter, the matter of reimbursements for cost of replacements of plant or property, and to endeavor to agree upon such revision of this Agreement as may be necessary in order that the project generating stations shall be kept in a dependable and efficient operating condition and that equitable provisions for such reimbursements shall be made.

SECTION 3.08 *Use of Capacity by Corporation and AEC.*

1. Corporation shall have the right at any time after the beginning of full scale operation to make use of any net available generating capacity in its project generating stations in excess of that part of the AEC contract demand corrected to the 330 kv station busses then being demanded and used by AEC and to the extent that Corporation sells such power to others than AEC it shall charge therefor not less than an aggregate amount per calendar year which, together with all payments made (after giving effect to all adjustments required

hereunder) or to be made to Corporation by AEC with respect to such year, will be equal to the total of the costs specified in paragraph 3. of Section 3.01 and the total net charges for such year to Account 703 (Fuel) of the Uniform System of Accounts.

2. For each clock-hour of each month the two following quantities of kilowatts shall be determined as follows:

A kilowatts = the product of (a) the AEC capacity ratio and (b) the estimated net capability of the said stations for such hour at their 330 kv busses determined by such methods and procedures as may be mutually agreed upon.

B kilowatts = the difference between said estimated net capability of the said stations for such hour and A kilowatts.

3. Whenever, after the beginning of full scale operation, the number of billing kwh of permanent power taken by AEC at the point of delivery during any clock-hour, corrected for losses to the 330 kv station busses, exceeds the quantity of A kilowatts for that hour, Corporation shall charge AEC an amount equal to 0.2 mills per kwh of such excess.

4. Whenever, after the beginning of full scale operation, the net number of kilowatt-hours taken by Corporation for sale to others than AEC from the 330 kv busses of said stations for any clock-hour, exceeds the quantity of B kilowatts for that hour, Corporation shall credit AEC an amount equal to 0.2 mills per kilowatt-hour of such excess.

5. The total amount to be charged by Corporation to AEC for any month pursuant to paragraph 3. above shall be the aggregate of the amounts to be charged for all the hours in such month. The total amount to be credited to AEC by Corporation for any month pursuant to paragraph 4. above shall be the aggregate of the amounts to be credited for all the hours in such month.

6. Corporation will have the right at any time prior to full scale operation to make use of any of the net available generating capacity in said stations that is not then being demanded and used by AEC and Corporation shall similarly credit AEC with an amount equal to 0.2 mills per kilowatt-hour for all energy taken by Corporation for sale to others than AEC through the use of such capacity.

SECTION 3.09 *Service After Contract Term.* If AEC shall require service for its operations at the Project after and immediately following the end of the term of this Agreement, including any extension made as provided for in Section 6.01, it shall have a first call on the capacity of Corporation's project generating stations for an additional term of five years in any amount up to but not exceeding the AEC contract demand in effect at the end of such term, upon giving Corporation at least three years written notice prior to the end of such term of the amount of its requirements. Such power will be paid for by AEC on terms to be agreed upon conforming as closely to the terms of this Agreement as may be practicable under the changed circumstances then prevailing, such terms to give full credit for the reduction or elimination of interest and amortization requirements, and to give recognition to the condition of the power facilities, the changed requirements (if any) for replacements and reserves, the availability of such reserves, interest and amortization on any other necessary debt plus a fair return on any equity capital then reasonably required for the purpose of rendering service during such extended period.

In the event that the parties hereto agree to the purchase by AEC of power for an additional term of five years, provision shall be made pursuant to which AEC, upon like notice and under like conditions, shall have first call for a second period of five years on the project generating stations in any amount not exceeding the amount to which AEC shall be entitled at the expiration of the first five year period. The terms of any agreement relating to such second five year period shall give effect to mutually satisfactory arrangements determined after a separate review of the factors hereinbefore described and the experience of the parties hereto during the first five year period.

Section 3.10 *Review and Recommendations by AEC.* While it is recognized that the construction and operation of the facilities referred to in Sections 1.01, 1.02 and 3.06 are the responsibility of Corporation, the costs thereof have a direct relation to AEC's cost of power under this Agreement, and accordingly AEC may from time to time review and discuss with Corporation its operating and construction plans, practices and procedures and make recommendations with respect thereto which in AEC's judgment may provide for economies in construction or operation, and Corporation will adopt such recommendations of AEC as may be mutually agreed upon.

ARTICLE IV

BILLING AND PAYMENT

Section 4.01 *Interim Power.* Corporation shall submit to AEC as early as practicable in each month a bill for all interim power supplied to AEC during the immediately preceding month pursuant to Section 2.02.

Section 4.02 *Supplemental Power.* Corporation shall submit to AEC as early as practicable in each month a bill for all supplemental power supplied to AEC during the immediately preceding month pursuant to Section 2.04.

Section 4.03 *Permanent Power.* Corporation shall submit to AEC as early as practicable in each month a bill for the base monthly demand charge and the base monthly energy charge specified in Section 3.01 or the monthly demand charge and the monthly energy charge specified in Section 3.02 for permanent power delivered by Corporation to AEC during the preceding month.

Corporation shall also submit to AEC as early as practicable in each month a bill or bills or credit memorandum for any amounts due Corporation or AEC, for the immediately preceding month on account of any of the adjustments provided for in Sections 3.03 and 3.04; provided, however, that Corporation may render such bills or credit memoranda for any or all of such adjustments on a quarterly basis, or such other basis as may be mutually acceptable, and may include therein the adjustment for any item not included in a previous bill or credit memorandum. Each such bill or credit memorandum shall include such detail as AEC may request to show the operation and effect of such adjustments.

Section 4.04 *Maintenance of Equipment and Cost of Replacements.* Corporation may bill AEC separately each month for reimbursement for the expense of maintaining AEC-owned equipment, as provided in Section 1.05, and for reimbursement of the cost of replacements as provided in Section 3.07, or may include such charge in any bill submitted pursuant to Sections 4.01, 4.02 and 4.03.

Section 4.05 *Taxes and Insurance Allocated Directly to AEC.* Corporation shall bill AEC for its share of the cost of any taxes allocated directly pursuant to clause (x) of paragraph 3. of Section 3.04 and the cost of any insurance to be paid by AEC pursuant to clause (y) of paragraph 3. of Section 3.04.

Section 4.06 *Payment of Charges in Event of Termination or Reduction.* Corporation shall submit to AEC as early as practicable in each month a bill for all amounts payable by AEC pursuant to Article VI for the preceding month.

Section 4.07 *Payment.* Bills rendered pursuant to this Article IV shall be paid by AEC within 15 days after the receipt thereof, but the bills and credit memoranda submitted shall be subject to such subsequent corrections (including corrections of computations for any particular year arising by reason of such matters as subsequent redetermination by the Bureau of Internal Revenue of taxes applicable to such year) as may be appropriate as a result of audits made for the purpose of verification thereof or otherwise. If during any notice period of the character described in Section 6.02, or any comparable period involved in a reduction of AEC contract demand under Section 6.03 or in a termination of this Agreement under Section 6.04 or Section 6.05, AEC shall fail to pay, within 15 days after the receipt thereof, any bill rendered pursuant to this Article IV in respect of power and energy supplied to AEC, Corporation, unless AEC shall pay such bill within 7 days after receipt of notification from Corporation of its failure to pay such bill, may elect to treat, upon 48 hours prior notice to AEC, such failure as a further notice from AEC to the effect that AEC will not require during the remainder of such period (i) any power in the case of the termination of this Agreement, or (ii) any power in excess of the reduced AEC contract demand in the case of a reduction of the AEC contract demand.

ARTICLE V

MEASURING INSTRUMENTS

SECTION 5.01 *Measuring Instruments.* Corporation shall own and maintain the metering equipment at the Project which will be necessary to provide complete information regarding the use of power and energy for dispatching and billing purposes, except that AEC shall own and maintain the necessary current and potential transformers with conduit, secondary wiring, and devices complete to the terminal blocks on Corporation's metering panels at the point of delivery hereunder. In order to expedite the work AEC shall purchase and install Corporation's metering panels and metering equipment at the Project 330 kv substations, the cost of which shall be reimbursed to AEC by Corporation. AEC may, at its option and expense, install check meters. Corporation will make such periodic tests and inspections of its meters as may be necessary to maintain the same at the highest practical commercial standard of accuracy, and will advise AEC promptly of the results of any such test which shows any inaccuracy more than 1% slow or fast. AEC shall be given notice of, and may have representatives present at, such tests and inspections. Corporation will make additional tests of its meters at the request of AEC and in the presence of AEC's representatives. If such periodic or additional tests show that a meter used for billing is accurate within 1% slow or fast, no correction shall be made in the billing to AEC; but if any such tests show that such meter is inaccurate by more than 1% slow or fast, correction shall be made in the billing to AEC for the previous month, or from the date of the latest test if within the previous month and for the elapsed period in the month during which the test was made, provided that no correction shall be made for a longer period than that during which it may be determined by mutual agreement that the inaccuracy existed.

SECTION 5.02 *Measurement of Maximum Demand.* Whenever it is necessary to measure or compute the maximum demand of the AEC load, such maximum demand shall be taken as the highest average simultaneous load in kilowatts at the point of delivery during any thirty-minute period starting on the hour or half-hour in the period under consideration.

ARTICLE VI

TERM OF AGREEMENT

SECTION 6.01 *Duration.* The term of this Agreement, unless this Agreement shall otherwise be terminated in accordance with the provisions hereof or such term be extended as in this Section 6.01 provided, shall commence with the date hereof and shall terminate on October 14, 1977; provided, however, that AEC shall have the option, exercisable prior to August 1, 1953, to extend the term of this Agreement to October 14, 1981 or a date twenty five years after full scale operation commences, whichever date shall [illegible] occur, by delivering to Corporation prior to August 1, 1953 a notice in writing of its election so to extend the term of this Agreement accompanied by (i) evidence in form and substance satisfactory to Corporation that AEC has full power and authority so to extend the term of this Agreement and (ii) an undertaking by AEC to assume the duties and obligations of AEC hereunder during the term of this Agreement as so extended.

If AEC does not obtain full power and authority to extend the term of this Agreement as contemplated by the next preceding paragraph, the parties hereto agree that upon like notice and under like conditions to those referred to in Section 3.09, AEC shall have first call for an additional period of five years, after the second period of five years referred to in Section 3.09, on the project generating stations in an amount not exceeding the amount to which AEC shall be entitled at the expiration of such second five year period. The terms of any agreement relating to such third five year period shall give effect to mutually satisfactory arrangements determined after a separate review of the factors referred to in Section 3.09 and the experience of the parties hereto during such second five year period.

SECTION 6.02 *Cancellation by AEC during Full Scale Operation.* In the event that power will no longer be required at the Project, AEC shall have the right to terminate this Agreement by delivering to Corporation, after the beginning of full scale operation, a notice in writing of its election to terminate not more than 25 months and not less than 24 months prior to the effective date of such termination (such period being herein called the "notice period" and the date on which said notice is delivered being herein called the "notice date"), subject to the following:

(a) During the notice period AEC shall pay, except as otherwise provided in paragraph (b) of this Section 6.02, to Corporation monthly (i) the base monthly demand charge provided in Section 3.01 to be paid by AEC, adjusted in accordance with Section 3.04; (ii) the base monthly energy charge provided in Section 3.01 to be paid by AEC, adjusted in accordance with Section 3.03; and (iii) all other charges payable by AEC under this Agreement;

(b) In the event that AEC shall, during the notice period, deliver to Corporation a further notice in writing to the effect that AEC will not require any power during any specified remaining portion of the notice period and thereafter, AEC shall, during such specified remaining portion, pay, in lieu of the demand charges referred to in paragraph (a) of this Section 6.02, the modified demand charges as defined in paragraph (d) of this Section 6.02. In the event that such further notice is to the effect that AEC will not require any specified amount of power during any specified remaining portion of the notice period and thereafter, appropriate adjustments shall be made with respect to the demand charges payable for power required during such specified remaining portion of notice period and the modified demand charges for power not so required.

(c) After the effective date of the termination of this Agreement, AEC shall pay to Corporation, as specified in Section 6.07, a cancellation charge computed in accordance with the following table:

Column I If Notice of Termination Is Delivered within Period of 12 Successive Calendar Months Specified Below, the First Period Commencing with Calendar Month in which Full Scale Operation Begins	Column II Equivalent Months of Modified Demand Charges Defined in Paragraph (d) of this Section Payable by AEC as a Cancellation Charge
First 3-13-56 to 3-13-57	28
Second 57	27
Third 58	25
Fourth 59	23
Fifth 60	21
Sixth 61	18
Seventh 3-13-62 to 3-13-63	15 → .3 2.3110 / 1110
Eighth 63	12
Ninth 64	9
Tenth 65	5
Eleventh and Thereafter 66	0

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If at the notice date the AEC contract demand then in effect is less than 1,800,000 kw, by reason of a reduction under Section 6.03, the equivalent months in Column II shall be multiplied by the ratio of the AEC contract demand to 1,800,000 kw.

(d) The "modified demand charges" mentioned in paragraphs (b) and (c) of this Section 6.02 shall be the monthly demand charges which would have been payable by AEC pursuant to Article III hereof, under conditions prevailing at the notice date, if AEC had not delivered such notice of termination and the project generating stations had been operated to furnish the AEC contract demand in effect at the notice date, less one-half of the costs included in such computation of the nature described in paragraph 3.(b) of Section 3.04; provided, however, that if (i) during the period commencing January 1, 1955 and terminating on the effective date of termination the total non-simultaneous peak loads of the Sponsoring Companies shall have increased by more than 6%, compounded annually, and (ii) in the period of the twelve consecutive months terminating on the effective date of termination the total non-simultaneous peak loads of the Sponsoring Companies shall have exceeded by more than 6% the total non-simultaneous peak loads of the Sponsoring Companies in the period of the twelve consecutive months immediately preceding such period, the modified demand charges under paragraph (c) shall be those that would have been applicable to a contract demand equal to the AEC contract demand in effect at the notice date reduced by an amount equal to one-half of the excess in kilowatts of the increase in non-simultaneous peak loads over a 6% growth from the earlier to the later of such twelve-month periods. The total non-simultaneous peak loads of the Sponsoring Companies shall be computed by excluding therefrom sales to Sponsoring Companies and all sales to other utilities of a non-firm or short term character.

(e) In the event that AEC shall not have delivered to Corporation the further notice described in paragraph (b) of this Section 6.02 and if AEC finds that it can use power at the Project for a period following the effective date of termination, it is the intent of the parties hereto, to the extent that Corporation can coordinate the supply of such power to AEC with the absorption by Corporation of the capacity not required by AEC, to attempt to reach mutual agreement of such modification of the above cancellation arrangements as may be indicated under then existing circumstances so as to enable AEC to receive power at the Project.

(f) Under all conditions AEC shall reimburse Corporation for all of its unamortized expenditures, and costs of cancellation of commitments, in respect of facilities (other than those located at the project generating stations) constructed or acquired with the approval of AEC to provide or to make possible long-term arrangements for fuel supply or more economical arrangements for fuel supply. AEC shall also reimburse Corporation for any costs of cancellation in respect of long-term arrangements for fuel supply made in accordance with Section 7.02 to the extent that the elimination of the power requirements of AEC requires Corporation to pay compensation under such long-term arrangements. Corporation, however, shall exercise every reasonable effort to reduce such costs to a minimum by, among other arrangements: (i) continuing such long-term arrangements to the fullest amount consistent with the fuel requirements of the project generating stations following such termination, and (ii) making arrangements with Sponsoring Companies whereby such Sponsoring Companies will utilize, where possible with no economic or other disadvantage, fuel supplies made available as a result of such termination.

SECTION 6.03 *Reduction of AEC Contract Demand during Full Scale Operation.*

1. The right of termination of this Agreement by AEC provided for in Section 6.02 shall include the right of reduction of the AEC contract demand to the extent that power is no longer required at the Project, with each reduction subject to prior written notice as specified in Section 6.02, to be followed by a cancellation charge determined in accordance

with the table in paragraph (c) of Section 6.02 above, except that (a) the equivalent months in Column II shall be multiplied by the ratio of the amount of the reduction to 1,800,000 kw, and (b) the amount of modified demand charges shall be multiplied by the ratio of the amount of the reduction to the AEC contract demand in effect at the notice date; provided, however, that in the event of a series of reductions, the notice periods of which overlap, the aggregate amount of cancellation charges paid shall not be less than what would obtain if the aggregate sum of all such reductions were treated as a single reduction as of the date of the first reduction in such series.

2. In the event of any reduction in the AEC contract demand, AEC shall, to the extent required, reimburse Corporation for the expenditures and costs specified in paragraph (f) of Section 6.02; provided, however, that in the event of a series of reductions, the notice periods of which overlap, the aggregate liability of AEC in such respect shall be limited to the aggregate of amounts applicable to each such reduction.

3. At the effective date of any reduction of the AEC contract demand, the AEC contract demand shall become the AEC contract demand in effect at the notice date minus the amount of such reduction.

4. In the event of any reduction of the AEC contract demand pursuant to this Section 6.03, the Corporation shall be obligated, in lieu of the reserve generating capacity obligations specified in Section 2.03 and Section 2.04, to furnish, in addition to the reserve generating capacity for which AEC pays demand charges, reserve generating capacity to AEC from any operable generating capacity in the project generating stations for which AEC does not pay demand charges and from sources other than the project generating stations, in a total amount equal to fifteen per cent of the sum of (i) the AEC contract demand after such reduction and (ii) the kw transmission losses thereon from the 330 kv busses of the project generating stations. Corporation shall make no demand charge to AEC for the reserve generating capacity so furnished, but AEC shall pay for the associated energy delivered on the bases provided in Sections 2.03 and 2.04.

SECTION 6.04 *Termination or Abandonment of the Project Prior to Full Scale Operation.* In the event that AEC shall abandon its plans or shall determine not to proceed with the Project prior to full scale operation, AEC shall have the right to terminate this Agreement by delivering to Corporation, prior to the beginning of full scale operation, a notice in writing of its election so to terminate (the date on which said notice is delivered being herein called the "notice date"); subject to the following:

(a) Corporation shall, promptly, after the notice date, advise AEC of the expenditures theretofore made, and AEC and Corporation shall mutually determine the estimated cost to complete, and the estimated net cost to abandon, with respect to general facilities at each of the generating stations, with respect to each generating unit and facilities directly related thereto at each of the generating stations, and with respect to each major element of the project transmission facilities.

(b) Corporation and AEC shall mutually determine, for the purposes of determining the minimum costs of termination to AEC, in accordance with the provisions of this Section 6.04, the "facilities to be completed" and the "facilities not to be completed." In the event Corporation and AEC are unable to so mutually determine the "facilities to be completed" and the "facilities not to be completed," for the purposes of this Section 6.04 the "facilities to be completed" shall be deemed to consist of those generating units and the facilities directly related thereto with respect to which, as of the notice date, Corporation shall have incurred expenditures which together with the costs of cancellation of commitments equal or exceed 20% of the estimated costs thereof, together with such general facilities at the generating stations and such transmission facilities as are necessary for the effective operation and utilization of such generating units.

(c) AEC shall reimburse Corporation in respect of "facilities not to be completed" for all expenditures made, all costs of cancellation of commitments, and the cost of abandoning construction, less the net salvage value.

(d) "Facilities to be completed," as determined in paragraph (b) above, shall be completed and installed for commercial operation by Corporation. During the period between the beginning of commercial operation of the first generating unit to be completed and a date 24 months after the notice date AEC shall pay Corporation the rate for permanent power specified in Section 3.02; provided, however, that if AEC shall deliver to Corporation during such period a further notice in writing to the effect that AEC will not require any power during any specified remaining portion of such period and thereafter, such rate shall be reduced by one-half of the costs specified in clause (ii) of subdivision (a) of said Section 3.02.

(e) Two years after the notice date a cancellation charge shall be payable by AEC to Corporation, in addition to the amounts specified in paragraphs (c) and (d) of this Section 6.04, in an amount equal to the sum of the following:

(1) An amount equal to the product of (i) the ratio of the number of generating units included in the "facilities to be completed" to eleven, multiplied by (ii) an amount equal to 28 equivalent months of the demand charges which would have been payable under Section 3.02, under conditions prevailing two years after the notice date, assuming completion of "facilities to be completed" except that such amount shall be reduced by one-half of the costs specified in clause (ii) in subdivision (a) of said Section 3.02; provided, however, that in the event that all eleven units shall be so completed, the amount described in this clause (1) shall not exceed 28 equivalent months of the modified demand charges specified in paragraph (c) of Section 6.02 for an AEC contract demand of 1,800,000 kw; and

(2) An amount equal to the excess of (a) the estimated cost of the "facilities to be completed" over (b) the product of (i) the ratio of the number of generating units included in the "facilities to be completed" to eleven and (ii) the estimated cost of all project facilities if the entire project were to be completed, provided that (b) above shall be increased by the following percentages depending on the number of units included in the "facilities to be completed":

One unit in either or both stations 20%
Two units in one station and one in the other 13⅓%
Two units in either or both stations 10%
Three units in one station and two in the other 7%
Three units in either or both stations 5%

The estimated costs mentioned in this subparagraph (2) shall be those referred to in paragraph (a) of this Section 6.04.

(f) In the event of termination of this Agreement prior to full scale operation AEC shall, to the extent required, reimburse Corporation for the expenditures and costs specified in paragraph (f) of Section 6.02.

(g) Notwithstanding any of the provisions hereinbefore contained in this Section 6.04, Corporation shall have the right, at its own expense, to complete any facilities included in the classification of "facilities not to be completed", but the total costs to AEC for termination, as determined above in this Section 6.04, shall not be affected thereby.

(h) Corporation shall retain title to all facilities.

SECTION 6.05 *Termination As Result of Certain Conditions.*

1. This Agreement shall terminate (with the same effect as if AEC had delivered to Corporation on August 1, 1953 a notice of termination pursuant to Section 6.04 hereof) unless

AEC shall have delivered to Corporation prior to August 1, 1953 (i) evidence (including, if requested by Corporation, an opinion of the Comptroller General of the United States) in form and substance satisfactory to Corporation, that AEC had full power and authority to execute this Agreement and the undertaking herein described; that the limitation on the liability of AEC for cancellation charges specified in Section 6.06 hereof has by appropriate action of the Congress been removed; that AEC has full power and authority to obligate the United States of America for all payments which may be required to be made by AEC to Corporation pursuant to the provisions of Sections 6.02, 6.03 and 6.04 hereof and this Section 6.05 (including, without limitation, full power and authority to provide for all payments to be made by AEC to Corporation during any notice period therein described); and that AEC has authority to pay cancellation costs under this Agreement out of any funds now or hereafter appropriated to it by Congress; and (ii) an undertaking obligating AEC to perform all of the duties and obligations to be performed by AEC hereunder during the remainder of the term of this Agreement.

2. In the event of the occurrence, prior to full scale operation, of either of the events specified in clause (i) and clause (ii) of this paragraph 2., this Agreement shall terminate with the same effect and under the same conditions as if, at the time of such occurrence, AEC had delivered to Corporation a notice of termination pursuant to Section 6.04 hereof:

(i) AEC shall have failed to pay any amount required to be paid by AEC to Corporation pursuant to the provisions of this Agreement, within a period of 30 days after the receipt of a written notice from Corporation to AEC of AEC's failure to pay any such amount; or

(ii) AEC shall make any payment required to be made by AEC to Corporation pursuant to the provisions of this Agreement without having full authority to make such payment.

3. In the event of the occurrence, during full scale operation, of either of the events specified in clause (i) and clause (ii) of paragraph 2. of this Section 6.05, this Agreement shall terminate upon the expiration of a period of two years following the occurrence of any such event with the same effect as if, at the time of such occurrence, AEC had delivered to Corporation a notice of termination pursuant to Section 6.02 hereof.

SECTION 6.06 *Limitation of Liability.* The liability of AEC for cancellation charges under the provisions of this Article VI shall in no event exceed an aggregate of $40,000,000 unless and until AEC shall deliver written notice to Corporation that AEC assumes liability for cancellation charges in an amount exceeding $40,000,000. It is understood, however, that AEC will use its best efforts to secure appropriate authorization from the Congress permitting AEC to obligate AEC for cancellation charges in an amount exceeding $40,000,000 and to the extent required by the provisions of Sections 6.02, 6.03, 6.04 and 6.05 hereof. AEC agrees that, in the event that appropriate authorization shall be secured prior to August 1, 1953, AEC will deliver to Corporation prior to August 1, 1953, a written notice to the effect that AEC assumes liability for all payments required to be made to Corporation by AEC pursuant to provisions of this Agreement, including the payments required to be made pursuant to the provisions of Sections 6.02, 6.03, 6.04 and 6.05 hereof, and an undertaking obligating AEC to perform all the duties and obligations to be performed by AEC hereunder during the remainder of the term of this Agreement.

SECTION 6.07. *Method of Payment of Cancellation Charges.*

1. In the event of the termination of this Agreement after the beginning of full scale operation in accordance with Section 6.02, the cancellation charge shall be payable by AEC to Corporation, commencing with the month following the effective date of termination, in monthly amounts which, together with all amounts payable to Corporation by others than AEC applicable to the costs specified in paragraph 3. of Section 3.04, will enable Corporation

to meet all of the costs specified in paragraph 3. of Section 3.04 until such cancellation charge has been paid in full; provided, however, that, notwithstanding the foregoing, payment in full shall be made no later than five years after the effective date of termination.

2. In the event of a reduction in the AEC contract demand after the beginning of full scale operation in accordance with Section 6.03, the cancellation charge shall be payable by AEC to Corporation, commencing with the month following the effective date of reduction, in monthly amounts which, together with (i) the demand charges payable by AEC in respect of the AEC contract demand as so reduced, and (ii) all amounts payable to Corporation by others than AEC applicable to the costs specified in paragraph 3. of Section 3.04, will enable Corporation to meet all of the costs specified in paragraph 3. of Section 3.04 until such cancellation charge has been paid in full; provided, however, that, notwithstanding the foregoing, payment in full shall be made no later than five years after the effective date of reduction.

3. In the event of the termination of this Agreement prior to the beginning of full scale operation in accordance with Section 6.04 or Section 6.05 amounts payable of the character specified in paragraph (c) of Section 6.04 shall be paid by AEC to Corporation in a lump sum and amounts payable of the character specified in paragraph (e) of Section 6.04 shall be paid by AEC to Corporation in monthly amounts which, together with all amounts payable to Corporation by others than AEC applicable to costs of the character specified in subdivision (a) of Section 3.02 or paragraph 3. of Section 3.04, will enable Corporation to meet all costs of the character specified in subdivision (a) of Section 3.02 or paragraph 3. of Section 3.04 until such amounts have been paid in full; provided, however, that, notwithstanding the foregoing, payment in full of the latter amounts shall be made over a period of no more than five years.

SECTION 6.08. *Use of AEC Facilities After Cancellation or Reduction.*

1. In the event of the termination of this Agreement under Sections 6.01 or 6.02, or in the event of a reduction of the AEC contract demand under Section 6.03, AEC shall make available to Corporation, on mutually acceptable terms, the busses, switching facilities and related equipment located at the AEC substations necessary for use in transmitting energy from the project generating stations to others than AEC; provided, however, that in the event AEC does not desire to retain title to such facilities and equipment AEC shall, prior to disposition thereof, give Corporation an opportunity, during a reasonable period, to purchase, subject to any provisions of the Federal Property and Administrative Services Act then in effect, the same at the then fair value thereof.

2. In the event of the termination of this Agreement under Section 6.04 or Section 6.05, AEC shall give Corporation the opportunity to purchase, subject to any provisions of the Federal Property and Administrative Services Act then in effect, the facilities and equipment referred to in paragraph 1. of this Section 6.08, including any incomplete parts thereof, at the then fair value thereof.

ARTICLE VII

GENERAL PROVISIONS

SECTION 7.01 *Earnings on Capital Stock.* It is the intent hereof that, except as may be otherwise agreed pursuant to Section 3.09 or pursuant to the last paragraph of Section 6.01, the earnings of Corporation applicable to its outstanding capital stock shall be equal to, and limited to, a net return after all taxes on income of eight per cent per annum, computed as provided in paragraph 3.(d) of Section 3.04.

SECTION 7.02 *Purchase of Fuel.* Corporation shall afford AEC the opportunity to review and discuss with it the price, terms and conditions of any major long term contract proposed to be made by Corporation with suppliers of coal or other fuel to be furnished to Corporation for consumption at Corporation's project generating stations and any major long term contract proposed for the handling and shipment of such coal or other fuel and to make recommendations with respect to such contracts, which in AEC's judgment may provide for economies and dependability in the fuel supply for the project generating stations; provided, however, that it is the intent of the parties that the acquirement of an adequate, dependable, and economical coal supply shall be the responsibility of Corporation. In addition, AEC shall have the right to approve the cancellation provisions of any contract for a term exceeding one year proposed to be made by Corporation pertaining to the supply of fuel to the generating stations, prior to the making of such contract.

SECTION 7.03 *Use of Other Fuels.* Corporation may make use of fuels other than coal, if available, to the extent it is economically advantageous to do so.

SECTION 7.04 *Accounts.*

1. Corporation shall keep books of account in accordance with the Uniform System of Accounts and such other systems of accounts prescribed by other governmental regulatory authorities having jurisdiction as may be applicable. In addition, Corporation shall keep such records and memorandum accounts as may be required for the computation of amounts payable by AEC hereunder and the determination of the earnings on the capital stock of Corporation referred to in Section 7.[illegible] The Uniform System of Accounts shall be used for the determination of any question relative to costs and expenses arising under this Agreement except that where specific methods of computations of amounts are set forth in this Agreement such methods shall be employed in lieu of any other method which might be required by the Uniform System of Accounts.

2. AEC shall have the right, at such reasonable times as it deems appropriate until five years after termination or expiration of this Agreement, to inspect all books, records and accounts pertaining to Corporation's operations hereunder and to make such audits thereof as AEC may deem necessary to protect the interests of AEC. Such books, records, accounts and all related documents will be retained by Corporation in accordance with Federal Power Commission Regulations to Govern the Preservation of Records of Public Utilities and Licensees as in effect at the date hereof.

3. Corporation agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this Agreement, have access to and the right to examine any directly pertinent books, documents, papers and records of Corporation involving transactions related to this Agreement.

4. Corporation further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this Agreement, have access to and the right to examine any directly pertinent books, documents, papers and records of such subcontractor involving transactions related to the subcontract. The term subcontract as used in this Section 7.04 does not include (i) purchase orders not exceeding $500, or (ii) contracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

5. Nothing in this Agreement shall be deemed to preclude an audit by the General Accounting Office of any transaction under this Agreement.

SECTION 7.05 *Force Majeure.* Corporation shall not be held responsible or liable for any loss or damage to AEC on account of nondelivery of energy hereunder at any time caused by Act of God, fire, flood, explosion, strike, civil or military authority, insurrection or riot, act of the elements, failure of equipment, or for any other cause beyond its control, provided, however, that non-delivery on account of any such causes shall not relieve AEC from its obligation to pay Corporation any charges payable hereunder. However, Corporation will exert every effort to assure the continuity of supply of the AEC contract demand to AEC and, when that amount of power is not available because of the foregoing causes, Corporation will endeavor, upon request of AEC, to secure the necessary power from others at just and reasonable rates.

SECTION 7.06 *Property Insurance.* Corporation will cause its property which is of a character usually insured by companies similarly situated and operating like properties to be insured to a reasonable amount against loss or damage from such hazards and risks as are usually insured by companies similarly situated and operating like properties, will carry such additional insurance as Corporation deems desirable in view of the special character of the load, and will carry such further insurance as AEC may from time to time request in writing or as may be required by the terms of any mortgage or other instrument pursuant to which indebtedness of the Corporation shall have been issued or incurred. The proceeds of any insurance received by Corporation due to the destruction of or damage to Corporation's facilities shall be applied to the replacement or restoration or repair of the facilities so destroyed or damaged to the condition required to fulfill Corporation's obligations under this Agreement. Corporation will, from time to time upon the written request of AEC, furnish AEC with a statement of such insurance then outstanding and in force, including the names of any insurance companies which have insured, the amounts thereof and the property, hazards and risks covered thereby.

SECTION 7.07 *Restriction on Employment.* In the performance of its obligations hereunder, Corporation shall not employ any person undergoing sentence of imprisonment at hard labor.

SECTION 7.08 *Interests of Others.* No member of or delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this Agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

SECTION 7.09 *Regulatory Approvals and Indebtedness.* The obligations of Corporation hereunder shall be subject to the following:

(a) The receipt of all regulatory approvals, in form and substance satisfactory to Corporation, necessary to permit Corporation to perform all the duties and obligations to be performed by Corporation hereunder or necessary to permit Corporation to issue shares of its capital stock to the Participating Companies and to issue the indebtedness referred to herein;

(b) The receipt of all regulatory approvals (including orders from the Federal Power Commission to the effect that any supply of interim power by Columbus and Southern Ohio Electric Company, Southern Indiana Gas and Electric Company, The Dayton Power and Light Company and The Toledo Edison Company, for the purposes contemplated herein, will not affect the respective status of such Sponsoring Companies under the Federal Power Act) in form and substance satisfactory to Participating Companies and the Sponsoring Companies, necessary to permit the Participating Companies to acquire shares of the capital stock of Corporation and necessary to permit the Participating Companies and the Sponsoring Companies to carry out all other transactions contemplated herein; and

(c) The execution and performance by institutional investors and banks of contracts or commitments, in form and substance satisfactory to Corporation, providing for the issuance by Corporation and the purchase by institutional investors and banks of the indebtedness referred to herein.

accordance with the Atomic Energy Act of 1946, as amended. Corporation shall not permit any individual to have access to restricted data until the designated investigating agency shall have made an investigation and report to AEC on the character, associations, and loyalty of such individual and AEC shall have determined that permitting such person to have access to restricted data will not endanger the common defense or security. As used in this paragraph the term "designated investigating agency" means the United States Civil Service Commission or the Federal Bureau of Investigation, or both, as determined pursuant to the provisions of the Atomic Energy Act of 1946, as amended by the Act of April 5, 1952, Public Law 298, 82nd Congress, 66 Stat. 43.

3. Except as approved in writing by AEC, Corporation shall insert the provisions of paragraphs 1. and 2. of this Section 7.14 in all (i) subcontracts, (ii) agreements with its employees, (iii) agreements for borrowed personnel, and (iv) the contracts with the Sponsoring Companies referred to in Section 1.03.

SECTION 7.15. *Eight-Hour Law.* This Agreement, to the extent that it is of a character specified in the Eight-Hour Law of 1912 as amended (Title 40 U. S. Code, Sections 321-326), is subject to the following provisions and exceptions of said Eight-Hour Law of 1912 as amended, and to all other provisions and exceptions of said Law.

No laborer or mechanic doing any part of the work contemplated by this Agreement in the employ of the Corporation or any subcontractor contracting for any part of said work contemplated, shall be required or permitted to work more than 8 hours in any one calendar day upon such work at the site thereof, except upon the condition that compensation is paid to such laborer or mechanic in accordance with the provisions of this Section. The wages of every laborer and mechanic employed by Corporation or any subcontractor engaged in the performance of this Agreement shall be computed on a basic day rate of 8 hours per day and work in excess of 8 hours per day is permitted only upon the condition that every such laborer and mechanic shall be compensated for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay. For each violation of the requirements of this Section, a penalty of $5.00 shall be imposed upon Corporation for each laborer or mechanic for every calendar day in which such employee is required or permitted to labor more than 8 hours upon said work without receiving compensation computed in accordance with this Section, and all penalties thus imposed shall be withheld for the use and benefit of the Government.

SECTION 7.16. *Patents and Inventions.* Corporation agrees to indemnify the Government, its officers, agents, and employees against liability of any kind (including costs and expenses incurred) for the use of any invention or discovery or for the infringement of any Letters Patent (not including liability arising pursuant to Title 35, U. S. Code, Section 183, as amended, prior to the issuance of Letters Patent) occurring by reason of the installation or use by Corporation (or installation by AEC for the account of Corporation) of items manufactured, furnished, installed, or supplied under this Agreement. Any liability or loss of the kind described in this section suffered by Corporation shall be at the sole cost of Corporation and shall not be included directly or indirectly in the determination of any charges to AEC.

SECTION 7.17. *Selection of Employees.* Corporation shall make every reasonable effort in the selection of its employees to secure persons who are competent, careful, honest and loyal to the United States of America.

SECTION 7.18. *Approval Required.* The execution of this Agreement by AEC is subject to the approval of the Director of Production, AEC, and this Agreement shall not become effective unless and until so approved.

Section 7.10 *Notices.* All notices under this Agreement shall be in writing, and if to Corporation, shall be sufficient in all respects if delivered in person to its President or Vice President or sent by registered mail addressed to it[illegible]ts office in Columbus, Ohio, or at any subsequent address of which Corporation may notify AEC in writing; and if to AEC, shall be sufficient in all respects if delivered in person to Area Manager, Portsmouth Area AEC, or sent by registered mail addressed to AEC at Portsmouth area office in Portsmouth, Ohio, or any subsequent address of which AEC may notify Corporation in writing.

Section 7.11 *Waiver.* The failure of either party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

Section 7.12 *Successors and Assigns.* This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, but this Agreement may not be assigned by either party without the written consent of the other, except that AEC may without Corporation's consent assign this Agreement to any successor Agency of the United States of America for the purpose of operation of the Project if such successor Agency is authorized to, and does, assume all of the duties and obligations of AEC hereunder, and Corporation may without the consent of AEC assign this Agreement to a successor to all or substantially all of its property and assets and may pledge this Agreement to secure its indebtedness incurred or to be incurred for the purpose of constructing its facilities, and this Agreement may be assigned or transferred without the consent of AEC to one or more persons who shall assume the obligations of Corporation hereunder in connection with the enforcement of any such pledge. Corporation may without the consent of AEC assign pursuant to the provisions of the Assignment of Claims Act of 1940, as amended, to any bank, trust company, or other financing institution, including any Federal lending agency, any moneys due or to become due under this Agreement, and any such assignment may cover all or any part of the amounts payable by AEC to Corporation under this Agreement and may be made to more than one such bank, trust company or financing institution either for the account of such bank, trust company or financing institution or as agent or trustee for two or more parties who are holders of indebtedness of Corporation. Payments to be made to the assignee of any moneys due or to become due under this Agreement shall not be subject to reduction or set off.

Section 7.13 *Anti-Discrimination.* Corporation, in performing the work required by this Agreement, shall not discriminate against any employee or applicant for employment because of race, creed, color or national origin. Any subcontract hereunder shall provide that the subcontractor shall not so discriminate.

Section 7.14 *Disclosure of Information.*

1. It is understood that disclosure of information relating to the work contracted for hereunder to any person not entitled to receive it, or failure to safeguard all secret, confidential and restricted matter that may come to Corporation or any person under its control in connection with the work under this Agreement, may subject the Corporation, its agent, employees, and subcontractors to criminal liability under the laws of the United States. See the Atomic Energy Act of 1946 (Public Law 585—79th Congress). See also Title 18, U.S.C.A. (Act of June 25, 1948; 62 Stat. 862).

2. In the performance of work under this Agreement Corporation agrees to conform to all security regulations and requirements of AEC. Except as AEC may authorize, in

Section 7.19. *Titles of Articles and Sections.* The titles of the Articles and Sections in this Agreement have been inserted as a matter of convenience of reference and are not a part of this Agreement.

Section 7.20. *Alterations.* The following changes were made in this Agreement before it was signed by the parties hereto:

NONE.

In Witness Whereof, the parties hereto have caused this instrument to be executed as of the day and year first above written.

OHIO VALLEY ELECTRIC CORPORATION

By ....
President

Attest:

E. W. Wilkinson
Secretary

THE UNITED STATES OF AMERICA

By and Through the Atomic Energy
Commission

By S. R. Sapirie
S. R. Sapirie
(Manager, Oak Ridge Operations)

Attest:

APPROVED

R W Cook
R. W. Cook
Director of Production
U. S. Atomic Energy Commission

A 1631

APPENDIX I

DESCRIPTION OF POWER SYSTEM FACILITIES TO SERVE THE AEC PORTSMOUTH AREA PROJECT

A. General

This Appendix I is included in the Agreement for the purpose of describing in greater detail the power system facilities to be provided by Corporation pursuant to Sections 1.01 and 1.02, the power system facilities to be provided by the Sponsoring Companies pursuant to Section 1.03, and the power system facilities to be provided by AEC. Exhibit A of this Appendix I is a One Line Diagram showing schematically the various power system facilities and their geographical and electrical relations to each other.

B. Project Generating Stations

The main station structure of each generating station will include a turbine room and condenser basement, coal bunker bay, boiler bay, auxiliary bay and an attached combination service and office building. The Ohio station will have two control rooms and the Indiana station three control rooms.

The turbine-generator equipment of the Ohio station will consist of five reheat type, tandem-compound, triple flow, condensing turbines, 1800 psig, 1050 F at throttle, 1000 F reheat, each driving a hydrogen cooled generator with an estimated net capability of 200,000 kilowatts as of generator leads at 30 psig H_2, complete with all necessary auxiliary and appurtenant equipment.

The turbine-generator equipment of the Indiana station will consist of six reheat type, cross-compound, condensing turbines, 2000 psig, 1050 F at throttle, 1050 F reheat with hydrogen cooled generators having a combined estimated net capability per cross-compound unit of 200,000 kilowatts as of generator leads at 30 psig H_2, complete with all necessary auxiliary and appurtenant equipment.

The boiler equipment of the Ohio station will consist of five partially enclosed type, 1,380,000 lb/hr, continuously rated, 2150 psig drum design, 1055 F, pulverized coal fired reheat steam generators, complete with fans and drives, pulverizers and drives, mechanical dust collectors and all other necessary auxiliary and appurtenant equipment.

The boiler equipment of the Indiana station will consist of six indoor type, 1,335,000 lb/hr, continuously rated, 2400 psig drum design, 1050 F, pulverized coal fired reheat steam generators, complete with fans and drives, pulverizers and drives, mechanical dust collectors and all other necessary auxiliary and appurtenant equipment.

The condensing water system of each generating station will consist of an intake structure complete with revolving screens and circulating water pumps, and intake and discharge tunnels.

Service cooling water equipment, and single-pass, divided-circulation, deaerating type steam condensers for each generating unit will be provided. Turbine room cranes will be provided at the stations.

Necessary general facilities will be provided at each generating station including: Site improvements (grading, drainage, river bank revetment, concrete surfacing and landscaping, access bridges to coal towers and intake structures, roads, fences, walks, parking areas and sewer systems), intra-site lighting and communication systems, service water systems, railroad trackage, earth dikes; auxiliary buildings (including coal-handling equipment repair buildings, warehouses, inflammable stores buildings, chlorine storage buildings, and gate houses); barge unloading facilities, dock facilities, and piers for mooring barges; facilities for unloading coal delivered by rail (at the Ohio station only); Diesel-electric locomotives, twin-engine scrapers, and tractor bulldozers to handle coal within the storage area; coal stocking-out conveyors and reclaiming hoppers with belt conveyors; complete belt-conveying systems for transporting coal through crusher junction houses; ash-collecting hoppers with hydraulically-operated pipe ash transport system; storage batteries and wiring for station auxiliary and grounding systems; miscellaneous power plant equipment including hoists, vacuum-cleaning systems, fire-extinguishing equipment, station service compressed air systems, and light-oil starting facilities; other equipment including office furniture and equipment, transportation equipment, storage bins, shop tools, laboratory equipment and necessary relaying, communication, telemetering and control equipment.

In addition to the spare parts usually provided, adequate major spare parts will be provided.

C. Step-Up Substations and Switching Stations at Each Generating Station

Each generating unit at each generating station will be connected to the 330 kv switching station through a bank of three single-phase, 80 mva step-up transformers. One spare single-phase transformer will be provided at each generating station.

The 330 kv switching station at the Ohio station will consist of five double-bus, triple-breaker bays arranged with two circuits for each bay. One circuit of one of the bays will be used for connection to a 330 kv double-circuit transmission line operated as one circuit provided by the Ohio Power Company extending from its Philip Sporn generating station. The 330 kv switching station at the Indiana station will consist of five double-bus triple-breaker bays arranged with two circuits for each bay and one double-bus, double-breaker bay arranged for one circuit. At each switching station there will be provided housing for switchyard control equipment and oil storage, handling and cleaning equipment.

The 330 kv circuit breakers in the switching stations at the generating stations will be of the oil type and rated at 15,000 mva interrupting duty and a three-cycle clearing time. In addition, at the 330 kv switching station at the Indiana station a 138/330 kv, 250 mva, FOA autotransformer bank and three 138 kv oil circuit breakers will be provided with the breakers arranged in a ring bus for connection to two 138 kv transmission lines provided by The Cincinnati Gas & Electric Company and Louisville Gas and Electric Company for interconnection with their respective systems.

D. Other Switching Stations

The Tanners Creek 330 kv switching stations will consist of a double-bus arrangement with a single oil circuit breaker for each circuit. This double-bus will be extended and connected without oil circuit breakers to the 330 kv double-bus of the Tanners Creek generating station of Indiana & Michigan Electric Company. These 330 kv oil circuit breakers will have the same rating as the 330 kv breakers of the switching stations at the project generating stations.

The 330 kv switching station to be located near the Walter C. Beckjord generating station of The Cincinnati Gas & Electric Company will consist of four double-bus, triple-breaker bays arranged with two circuits for each bay and one double-breaker bay arranged for one circuit. In addition, at this switching station a 138/330 kv, 250 mva, FOA autotransformer bank will be provided for connection to one 138 kv transmission line to be provided by The Cincinnati Gas & Electric Company.

E. Substations Provided by AEC at the Project

In addition to the power system facilities described above, to be provided by Corporation and several of the Sponsoring Companies, the power system facilities shown on Exhibit A to be provided by AEC at the Project will be as follows:

a. Two 330 kv substations, each consisting of six double-bus, triple-breaker bays arranged with two circuits for each bay, the circuit breakers of which will be of the oil type and rated at 15,000 mva interrupting duty and a three-cycle clearing time.

b. A 138/330 kv, 150 mva, FOA autotransformer bank and two 138 kv oil circuit breakers for connection to one 138 kv transmission line to be provided by Columbus and Southern Ohio Electric Company and one 138 kv transmission line to be provided by The Ohio Power Company for interconnection with their respective systems.

F. Transmission Lines to be Provided by Corporation

The transmission lines to be provided by Corporation are described as follows:

a. Two 330 kv circuits approximately 72 miles in length, on double-circuit steel towers between the Indiana station and the switching station near the Walter C. Beckjord generating station.

b. Two 330 kv circuits approximately 42 miles in length, on double-circuit steel towers between the Indiana station and the Tanners Creek switching station.

c. Two 330 kv circuits approximately 34 miles in length, on double-circuit steel towers between the Tanners Creek switching station and the switching station near the Walter C. Beckjord generating station.

d. Four 330 kv circuits approximately 72 miles in length, on double-circuit steel towers over separate rights of way between the switching station near the Walter C. Beckjord generating station and the Project.

e. Four 330 kv circuits approximately 50 miles in length, on double-circuit steel towers over separate rights of way between the Ohio station and the Project.

Each of the transmission lines described in items (a) and (c) above will cross the Ohio River at two points as shown on Exhibit A. These crossings will be constructed with adequate navigation clearance from maximum high water of record to the lowest conductors, as required by the Corps of Engineers of the U. S. Army.

All of the above described 330 kv transmission lines will be double-circuit type constructed with 1,275,000 cm ACSR expanded conductors, having a conductivity equivalent to 802,000 cm copper. Each conductor will be supported by means of eighteen insulator units per suspension string and nineteen units per dead-end string. Each insulator string will be equipped with a corona shield at the conductor end and vibration control in the form of dampers, armor rods, or both. Each double-circuit line will be equipped with a single overhead shield wire of 159,000 cm. ACSR. A typical double-circuit tower is shown on Exhibit B.

A 1634

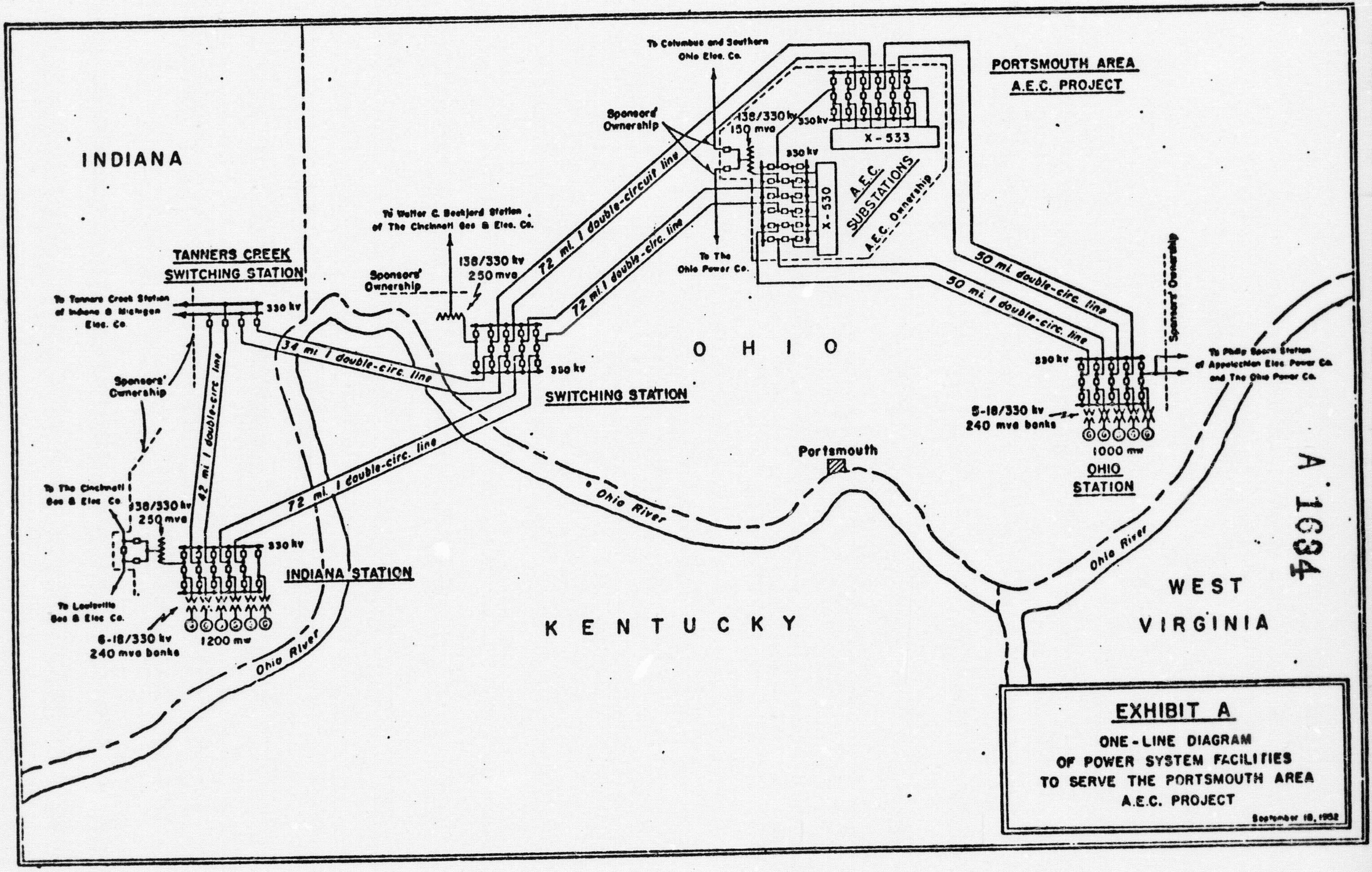
INDIANA
OHIO
KENTUCKY
WEST VIRGINIA
Ohio River
Ohio River
Ohio River
Portsmouth
PORTSMOUTH AREA
A.E.C. PROJECT
TANNERS CREEK SWITCHING STATION
To Tanners Creek Station of Indiana & Michigan Elec. Co.
330 kv
Sponsors' Ownership
To The Cincinnati Gas & Elec. Co.
138/330 kv
250 mva
To Louisville Gas & Elec Co.
6-18/330 kv
240 mva banks
1200 mw
INDIANA STATION
330 kv
42 mi. I double-circ. line
34 mi. I double-circ. line
72 mi. I double-circ. line
To Walter C. Beckjord Station of The Cincinnati Gas & Elec. Co.
Sponsors' Ownership
138/330 kv
250 mva
330 kv
SWITCHING STATION
72 mi. I double-circuit line
72 mi. I double-circ. line
To Columbus and Southern Ohio Elec. Co.
Sponsors' Ownership
138/330 kv
150 mva
330 kv
330 kv
To The Ohio Power Co.
X-533
X-530
A.E.C. SUBSTATIONS
A.E.C. Ownership
50 mi. double-circ. line
50 mi. I double-circ. line
Sponsors' Ownership
330 kv
To Philip Sporn Station of Appalachian Elec Power Co. and The Ohio Power Co.
5-18/330 kv
240 mva banks
1000 mw
OHIO STATION

EXHIBIT A

ONE-LINE DIAGRAM
OF POWER SYSTEM FACILITIES
TO SERVE THE PORTSMOUTH AREA
A.E.C. PROJECT

September 18, 1952

A 1635

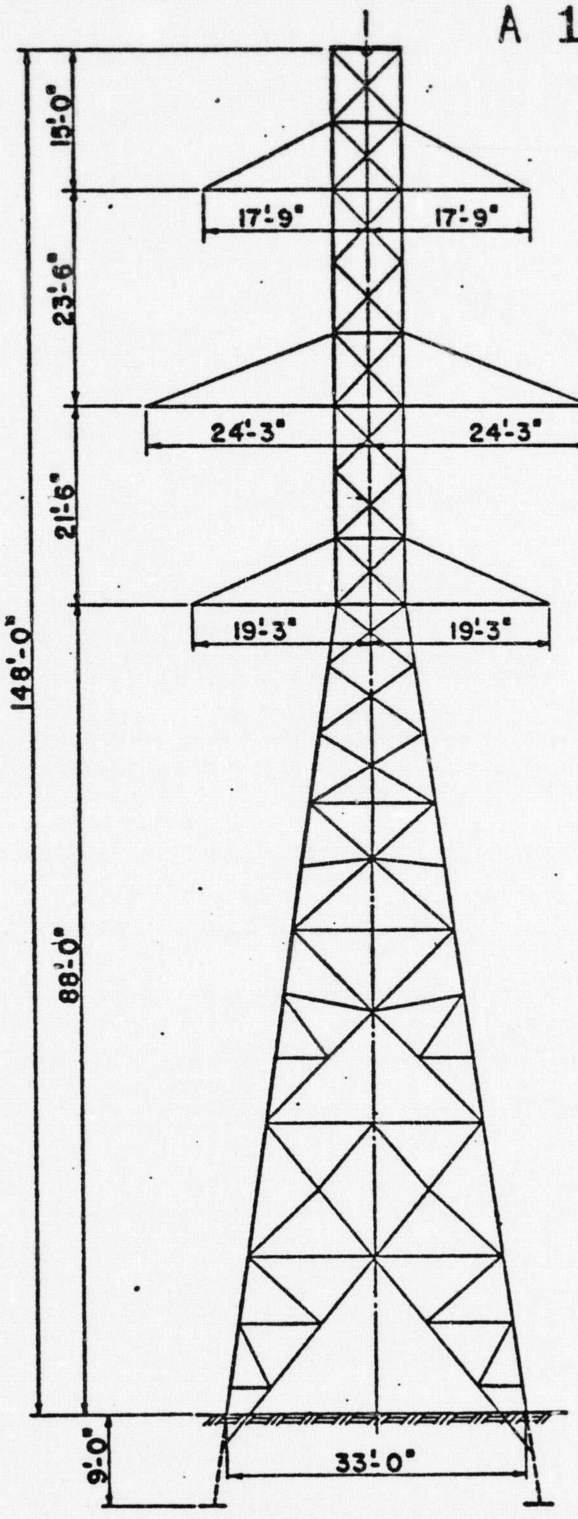
15'-0"
17'-9"
17'-9"
23'-6"
24'-3"
24'-3"
21'-6"
19'-3"
19'-3"
148'-0"
88'-0"
9'-0"
33'-0"

EXHIBIT B

OHIO VALLEY ELECTRIC CORPORATION
TYPICAL 330 KV DOUBLE-CIRCUIT TOWER

September 18, 1952

APPENDIX II

DEFINITION OF OUT-OF-POCKET COST

Out-of-pocket cost associated with the furnishing of supplemental energy means such operating and tax expense incurred that would not have been otherwise incurred if such supplemental energy had not been furnished. Such operating expenses, under usual circumstances, include the incremental production expense incurred in the production of the energy so furnished. Incremental production expense associated with the production of such energy will be influenced by the class of generating station used for such purpose. If the station used is normally operating and carrying load, the incremental expense will be the fuel expense plus an appropriate allowance for maintenance, plus 0.2 mills per kwh for incremental operating labor. The appropriate unit allowance for maintenance under such circumstances will be one-half of the weighted average unit cost (expressed in mills per kilowatt-hour of net generation) incurred at such station for maintenance during the twelve calendar month period next preceding the month that such production occurred. If the station or part thereof used is normally held in reserve as standby, all expense incurred that is in excess of the expense that would have been incurred for standby operation of such station or part thereof will be considered incremental expense. To the operating expenses as hereinabove determined, there will be added a charge of 0.3 mills per kwh to cover accounting, administration and billing. Tax expenses will be the expenses that are payable as tax either in connection with the sale or production of such energy.

D

D

A 1637

APPENDIX III

DETERMINATION OF ESTABLISHED CAPABILITY

The established capability of the project generating stations shall be determined in accordance with the following procedures:

1. Corporation will, at the commencement of full scale operation and at the end of each calendar year, review the actual performance experience of each of the two generating stations and determine by mutual agreement with AEC a reasonable value for the combined dependable capability of the two generating stations for the period until the next determination. The basis for determination of each station's capability shall be the maximum amount of generation that could have been carried continuously at all times during the year, had the average conditions of temperature and cleanliness of circulating water prevailed during the entire year; with all normally operated equipment in service; with such equipment in an average state of maintenance and cleanliness; with the plant consuming fuel of the average quality being purchased; with average steam conditions and normal interstage extraction from the turbines; with generators carrying usual hydrogen pressure, operating at normal voltage, and with the operating power factor normally imposed by the system.

2. The capability of each of the stations shall be determined at its 330 kv busses by subtracting from the sum of the generator outputs the total of the auxiliary load demands and the step-up transformer loss demands at the station. The generator outputs and the auxiliary load demands will be measured by suitable meters, while the loss demand of the step-up transformers to the 330 kv busses shall be calculated by a mutually agreed upon procedure.

A 1633

Contract No.
AT-(40-1)-1629
TV-14266A

PADUCAH POWER CONTRACT
Between
UNITED STATES OF AMERICA
Acting by and through
UNITED STATES ATOMIC ENERGY COMMISSION
And
TENNESSEE VALLEY AUTHORITY

THIS AGREEMENT, made and entered into as of the 26th day of March, 1953, by and between UNITED STATES OF AMERICA, acting by and through UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter called "Commission"), and TENNESSEE VALLEY AUTHORITY (hereinafter called "Authority"), a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933 as amended;

WITNESSETH:

WHEREAS, Commission has arranged for the construction and operation of production facilities (hereinafter called "Paducah Project") on the site formerly occupied by the Kentucky Ordnance Works in the vicinity of Paducah, Kentucky; and

WHEREAS, Commission has requested Authority to supply part of Commission's estimated power requirements at the Paducah Project, and is making arrangements with Electric Energy, Inc. (hereinafter called "EEInc.") for the supply of the remainder of said requirements; and

WHEREAS, Authority is undertaking to expand its system capacity to provide power for the Paducah Project; and

WHEREAS, Authority is supplying half of Commission's initial power requirements at the Paducah Project in accordance with the temporary provisions of a Letter Contract (AEC number AT-(15-1)-26; TVA number TV-11642A) of August 23, 1951; and

WHEREAS, the parties wish to enter into a long-term agreement for the continuing supply of power and energy by Authority for the Paducah Project;

NOW, THEREFORE, for and in consideration of the premises and of the mutual covenants herein contained, the parties hereto covenant and agree as follows:

1. Term of Contract. The provisions of this agreement shall become effective as of July 1, 1954, and said Letter Contract of August 23, 1951, is hereby terminated as of July 1, 1954. This agreement shall continue in effect for an initial term expiring on January 1, 1966. Unless this agreement is cancelled by Commission as provided for below, then on January 1, [illegible] and on each January 1 thereafter through January 1, 1977, the term of this agreement shall be extended automatically for an additional year unless either party notifies the other that such extension shall not be effected, such notice to be delivered not less than 5 years prior to the date on which such extension would otherwise be effected. It is the intent of the parties that no such notice shall be delivered for the purpose of seeking a change in rates or other conditions because more attractive markets for power or more attractive sources of power may develop.

This agreement may be terminated by Commission, effective on any date not earlier than September 30, nor later than November 30, of any year during the initial term or its extension, upon not less than 51 months' advance written notice to Authority, accompanied by a statement of Commission's intent to reduce permanently below 1,500 mw its total use of power at the Paducah Project.

Unless otherwise agreed, the contract demand hereunder shall be reduced to 500 mw for the last 12-month period prior to any termination or expiration of this agreement, and to 800 mw for the 12-month period immediately preceding said last 12-month period.

2. Availability of Power. Subject to the provisions of sections 6 and 9, Authority shall make available to Commission from its system firm power in the amount of the effective contract demand hereunder. The contract demand shall be 500 mw initially and shall be increased by the respective amounts tabulated below upon the dates of initial commercial operation of the respective generating units. After the initial commercial operation of the last of said units, the contract demand shall be 1205 mw, subject to the provisions of sections 1 and 7. Authority will endeavor diligently to install the units on a schedule contemplating initial commercial operation by the estimated dates shown or as soon thereafter as the availability of materials and equipment permits.

Estimated Date	Unit	Mw
Nov. 1, 1954	Shawnee #7	135
Dec. 15, 1954	Shawnee #8	135
Feb. 1, 1955	Shawnee #9	135
Apr. 1, 1955	Shawnee #10	135
Nov. 1, 1955	Gallatin #1	80
Jan. 1, 1956	Gallatin #2	85

The number used in this contract to identify any generating unit in any plant refers to the order in which said generating unit is placed in initial commercial operation in said plant.

3. Conditions of Delivery. The points of delivery for power supplied hereunder shall be at the dead-end assemblies on the steel structures at the respective 161-kv sides of Commission's primary substations at the Paducah Project, except as otherwise agreed from time to time. Each

party will be responsible for providing at its own expense all facilities on its side of the respective points of delivery, except as otherwise agreed.

The power supplied hereunder will be in the form of three-phase alternating current at approximately 60 cycles per second. Under normal conditions, voltage on the C-31 bus shall be within five percent of 161 kv and voltages at the other points of delivery (C-33 and C-37) shall be within five percent of mutually agreed voltages.

Except as may otherwise be agreed from time to time, Commission shall use power hereunder at a power factor of not less than 93 percent on the 161-kv busses.

Authority's and EEInc.'s 161-kv transmission facilities will be interconnected through Commission's busses and operated in parallel, subject to the provision without expense to Authority of any special facilities which in Authority's judgment are necessary to permit efficient parallel operation and Authority would not otherwise be justified in providing, and to the negotiation of arrangements for such parallel operation, mutually satisfactory to the parties and EEInc., including, without limitation, procedures for Authority and EEInc. to account and settle for any differences (resulting from scheduled transfers between them, from the physical characteristics of interconnected operations or otherwise) between the amounts of power, energy, and reactive power physically delivered to Commission over Authority's own facilities and the respective amounts supplied by Authority hereunder as determined in accordance with section 4 of this agreement. Authority shall also endeavor to arrange with EEInc. for mutual emergency standby arrangements and scheduling of maintenance outages, so as to help assure continuity of service to the Paducah Project.

4. Determination of Power and Energy Supplied. If, at any time, Authority's and EEInc.'s facilities are not operated in parallel, the power, reactive power, and energy supplied by Authority hereunder shall be determined by measurement of the deliveries from Authority's system, adjusted for any amounts that Authority or EEInc. may arrange to deliver for the other. When Authority's and EEInc.'s facilities are operated in parallel, the aggregate amounts of power, energy, and reactive power delivered to Commission by Authority and EEInc. at the above-described points of delivery shall be determined by measurement (except that the aggregate amount of reactive power delivered shall be deemed to be less than the measured amount by one kvar for each 10 kw of any scheduled transfers of power between EEInc. and Authority other than under mutual emergency standby arrangements). Of said aggregate amounts of power, energy, and reactive power, respectively, delivered to Commission at any time, Authority shall be deemed, unless otherwise agreed, to have supplied the same percentage shares as its respective shares of the aggregate amounts it and EEInc. together were then obligated to make available to Commission for use at the Paducah Project.

The demand under this agreement for any month shall be the larger of (a) the highest average load in kilowatts so supplied by Authority during any 30-consecutive-minute interval during the billing period, or (b) 93 percent of the highest average load in kva so supplied by Authority during any 30-consecutive-minute interval during the billing period.

Authority shall not be obligated to make available any greater amount of power at any time than the effective contract demand less any reductions in availability under section 6, and if Commission establishes a greater demand at any time (the excess being hereinafter referred to as the excess demand) it shall, upon Authority's request, promptly discontinue such excess demand. For any billing period in which there is an excess demand, a corresponding proportion of the energy shall be paid for at the price currently applicable to comparable energy sold by Authority on a month-to-month basis.

5. Rates and Charges. Commission shall pay Authority for power and energy at the following rates:

Capacity Charge. A monthly capacity charge of $1.10 per kilowatt, adjusted as follows, applied to the effective contract demand plus any excess demand, less half the amount of any reductions in the availability of power below the contract demand pursuant to the provisions of section 6:

Until the date of initial commercial operation of Shawnee Unit No. 9, said capacity charge shall be increased or decreased by one cent for each two percentage points or major fraction thereof by which the average of the Building Cost Index published in the Engineering News Record for the calendar months from January 1951 to June 1953, inclusive, is more than 104 percent or less than 96 percent, respectively, of 388.7 (the average of said Building Cost Index for the last six calendar months of 1950).

From and after the date of initial commercial operation of Shawnee Unit No. 9, said capacity charge (without inclusion of any adjustment under the preceding subparagraph) shall be increased or decreased by one cent for each one and one-quarter percentage points or major fraction thereof by which the average of said Index for the calendar months from January 1951 to June 1955, inclusive, is more than 104 percent or less than 96 percent, respectively, of 388.7.

Energy Charge. Except as provided in section 4, the energy charge shall be 2 mills per kilowatt-hour; provided, that for each six-month period beginning with January or July, said energy charge (exclusive of any previous adjustments under the following subparagraphs) shall be subject to adjustment as follows:

(1) Said energy charge shall be increased or decreased by 0.01 mill for each tenth of a cent (or major fraction thereof) that the average cost per million Btu of coal received (unloaded) at Authority's facilities at the Shawnee Plant in the preceding six-month period ending with June or December is more or less, respectively, than $17\frac{1}{2}$ cents. For convenience, the average Btu

content of the coal received during a six-month period may be considered to be the same as the average Btu content of the coal burned during the period; and

(2) Said energy charge shall be increased or decreased by 0.01 mill for each four cents (or major fraction thereof) that the six-month average of Hourly Earnings of Production Workers in Gas and Electric Utility Industries, as compiled by the Bureau of Labor Statistics for the preceding six-month period ending with March or September, is more or less, respectively, than $1.60.

Pending the availability of data required for any of the above adjustments in capacity or energy charges, bills shall be based on Authority's estimates of such data and shall be subject to final adjustment. If publication of any necessary data is suspended, such data shall be determined for the purposes hereof from the best available information.

In the event of any change of 10 mw or more in availability of power during any month, the month will be divided for billing purposes, each billing period comprising the intervals in which the same amounts of power are available, and the capacity charges shall be prorated accordingly.

In the event that Authority is required by any law enacted after January 1, 1953, to pay any amounts for or in lieu of taxes which it would not have been required to pay except for the supply of power hereunder, including without limitation any payments resulting from Authority's ownership or operation of steam electric generating and other facilities required for such supply of power, Commission will reimburse Authority for such payments. Authority will confer with Commission before making any payment for which it would be entitled to such reimbursement in whole or in part.

6. Reduction in Available Power at Commission's Request. Commission shall have the right, upon notice as provided below, to reduce temporarily below the contract demand the amount of power to be made

available by Authority, with resultant savings in capacity charges as provided in section 5; provided, that unless otherwise agreed, Commission shall not so reduce the amount of power to be made available by Authority below 1,000 mw. At any time after any such reduction has become fully effective, Commission may require resumption of availability, in whole or part, upon notice as provided below.

Unless otherwise agreed, Commission shall give Authority written notice of the total amount of any such reduction or resumption, any reduction shall become effective in monthly steps of 20 mw (or, in the case of the last step, any remaining fraction of 20 mw), any resumption shall become effective in monthly steps of 10 mw (or in the case of the last step, any remaining fraction of 10 mw), and the first step in any reduction or resumption shall occur at the beginning of the second calendar month following that in which the notice is given, or such later month as may be specified in the notice.

In giving any notice under this section or section 7, Commission shall follow the principle that the amount of power to be supplied by Authority is not to be less at any time, unless otherwise agreed, than the sum of half of the first 1,000 mw and three-fourths of the remainder of Commission's total power requirements for the Paducah Project. No notice under this section 6 or section 7 shall be given before the reduction or resumption requested in any earlier notice under either section becomes fully effective.

7. Reduction in Contract Demand. Commission shall have the right at any time, on at least three days' advance written notice to Authority, to reduce the contract demand for any specified period of

from one to six calendar months from 1,205 mw to any amount between 1,180 and 1,205 mw.

At any time when the availability of power has been reduced below the contract demand by any amount under the provisions of section 6, Commission may permanently reduce the contract demand by all or any part of such amount upon written notice to Authority. Unless otherwise agreed, any such reduction in contract demand shall become effective in monthly steps of 10 mw (or, in the case of the last step, any remaining fraction of 10 mw), and the first step shall occur at the beginning of the second calendar month following that in which the notice is given.

8. Changes in Availability of Power. Upon the request of either party at any time, the parties shall consider together whether it may be mutually advantageous to agree upon terms whereby the amount of power available would be increased or decreased permanently or for some temporary period, with appropriate changes in the charges. Any such agreement of the parties shall be reduced to writing.

9. Interference with Availability or Use of Power. The term "force majeure" shall be deemed to include war, invasion, fire, accident, floods, backwater caused by floods, acts of God, injunction, strike of the party's employees, inability to obtain or ship materials or equipment because of the effect of similar causes on the party's suppliers or carriers, or any other cause reasonably beyond the control of the party affected. Acts of God shall not be deemed to include the effects of drought unless the drought is of such severity as to have a probability of occurrence not more often than an average of once in forty years.

If Authority's ability to supply the power to be made available hereunder is delayed, interrupted or curtailed because of force majeure, Authority shall cancel or proportionately reduce, as the case may be, the capacity charge applicable to such power, but shall not be liable for damages or breach of contract.

Authority shall as far as possible avoid any interruption or curtailment of service hereunder. If any interruption or curtailment is necessary, Authority shall give such advance notice as is reasonable under the circumstances and shall make appropriate adjustment of the capacity charge, but shall not be liable for damages or breach of contract.

If Commission's ability to operate the production facilities for which power is available hereunder is interrupted because of force majeure to such an extent that Commission is able to use power only for such purposes as lighting and the operation of auxiliary equipment, for the period of interruption the prorated portion of the capacity charge applicable to such power shall be half the amount otherwise applicable.

After the tenth unit in the Shawnee Steam Plant commences commercial operation, if the net power output that can be produced at full capacity by said plant, is reduced by force majeure below 1,205 mw for any interval, or below 1,350 mw for any period longer than six months, Authority's obligation to supply power at the rates specified in section 5 shall be curtailed by the amount of the reduction below 1,205 mw for such interval, or by the amount of the reduction below 1,350 mw for the period in excess of six months, as the case may be; provided, that if Authority is capable of furnishing power to replace all or part of such curtailment from facilities other than the Shawnee Steam Plant, it shall notify Commission of the amount of power it can so make available and the charges therefor; and, upon Commission's request, shall supply such replacement power at the charges so quoted.

Each party shall notify the other party promptly of the development of any cause of interruption or curtailment, and shall remedy the effect thereof as promptly as practicable.

10. Amendment of Agreement. If at any time either party finds that a situation or condition has developed which, in its judgment, calls for a change in the provisions of this agreement to correct inequities, it shall advise the other party of the facts and propose an amendment to give appropriate recognition to the changed situation or condition. Upon agreement as to an appropriate amendment, this agreement shall be modified accordingly, effective as of the date notice of such situation or condition was given.

In recognition of the fact that Authority has no right to terminate this agreement in advance of the date of expiration, Commission pledges itself to give full recognition to any changed condition or situation brought to its attention by Authority and to endeavor to reach agreement with Authority as to equitable contract changes. It is not the purpose of this section to permit either party to seek a change in rates or other conditions because more attractive markets for power or more attractive sources of power may develop.

11. Effect of Commission's Arrangements with EEInc. It is recognized that the amounts of power, reactive power, and energy Authority may be called upon to supply hereunder from time to time can be affected not only by changes in the level of the Atomic Energy Commission's total load but also by changes in the amounts EEInc. is obligated to supply Commission and changes in the point and conditions of delivery thereof, and that changes in the arrangements between Commission and EEInc. could affect Authority's service to Commission and other customers and Authority's costs

of operation. Commission shall advise Authority of changes in its arrangements with EEInc. for amounts of power, reactive power and energy and changes in the point and conditions of delivery thereof, and shall keep Authority whole in the event Authority is adversely affected by any such changes.

12. Commission's Estimates of Requirements. On January 1 and July 1 of each year Commission shall furnish Authority with preliminary estimates of Commission's total power and energy use at the Paducah Project for each of the succeeding 24 months, and with information as to any prospective substantial changes in the level of power use thereafter. Commission will also inform Authority promptly of any changes in the amount of power to be made available by EEInc.

13. Term Coal Purchases. In order to be prepared to deliver power hereunder, it is desirable for Authority to enter into contracts for term purchases of coal. Commission agrees to reimburse Authority for any loss suffered by Authority as a result of such contracts to the extent that such loss is caused by Commission's using less energy for any reason than Authority could reasonably expect when the coal was purchased, on the basis of estimates furnished Authority by Commission. Authority shall use its best efforts to minimize such loss.

14. Billing and Payment. Authority will bill Commission monthly. Payment shall be made by Commission within 20 days from the date of bill, at Authority's offices at Chattanooga, Tennessee, or at such other place as Authority may designate. Payments will be subject to the adjustments provided for herein and correction of errors in billing disclosed by postpayment audit.

15. Mutual Liability. Commission and Authority each agrees to indemnify the other against and save the other harmless from any and all

claims by or liability to any other person arising out of the negligence of the indemnifying party or its agents or contractors, other than independent contractors operating under fixed-price contracts.

16. Operation of Commission's Facilities. Commission's facilities shall be operated, insofar as practicable, so as not to permit load fluctuations which, in Authority's judgment, interfere with proper operation of Authority's system. In the event such fluctuations occur, Authority shall notify Commission and Commission shall promptly take such steps as are necessary to reduce such fluctuations to a magnitude not objectionable to Authority.

Commission's operations of its 161-kv facilities will be in accordance with mutually satisfactory written operating procedures, and all its circuit breakers, relays, communication and telemetering facilities, and related equipment connected directly or indirectly to Authority's system will at all times be operated and maintained in coordination with said system. All tests, settings, and adjustments on such equipment shall be subject to the approval of Authority. Authority shall have the privilege of having its engineers present when such tests, adjustments, or settings are made, or Authority, upon the request of Commission and at the expense of Commission, shall make the necessary tests, adjustments, or settings.

Commission will design its 161-kv lines, busses, and other equipment which interconnect any of Authority's transmission facilities with other transmission facilities of Authority or those of EEInc. to permit the passage of at least 150 mw in either direction between the systems of EEInc. and Authority, in addition to the delivery to Commission from either system in behalf of the other of emergency standby power up to the capacity of one generating unit in either EEInc.'s Joppa Steam Plant or Authority's Shawnee Steam Plant. Authority shall be permitted to use any of the above 161-kv lines and busses together with associated facilities of Commission for delivery of power hereunder and for transferring other power.

17. Metering. Authority shall, at its expense, own and maintain metering equipment to measure the flow of power and energy between Authority's and Commission's facilities at the points of delivery, except as otherwise agreed. Commission shall own and maintain the necessary current and potential transformers with conduit, secondary wiring, and auxiliary devices, complete to Authority's metering panels, furnish suitable space in its switching station buildings for Authority's equipment, and make available to Authority certified copies of calibration and test data on each instrument transformer. Commission may, at its option, and expense, install check meters. In order to expedite the work, Commission shall obtain and install Authority's metering panels and metering equipment at Commission's switching station buildings, and Authority shall reimburse Commission for the cost of such purchase and installation.

Authority will, at its own expense, and in the presence of representatives of Commission if so requested, make such periodic tests and inspections of Authority's meters as may be necessary, in its judgment, to maintain the same at the highest practical commercial standard of accuracy. Authority will make any additional tests Commission may request; if any such additional test shows that the meters are accurate within one percent, the test shall be paid for by Commission. If any test shows that a meter is in error by more than one percent, an appropriate adjustment shall be made in the bill for the period of probable error but not more than 30 days prior to the date of such test.

18. Easements and Rights of Access. Commission shall provide Authority, without charge, with permanent easements over Commission's property, at agreed locations, for any transmission facilities of Authority constructed for supplying power hereunder or for transferring power between any of Authority's facilities and other facilities of Authority or those of other electric systems. Commission reserves the right to require Authority to move any such facilities for Commission's convenience and at Commission's expense.

Commission hereby grants all rights of access in, over and across its property necessary for Authority to install, protect, maintain, and remove its facilities and to fulfill its responsibilities under this agreement for testing and operation of its own and certain of Commission's facilities. However, Commission reserves the right to refuse access to restricted process areas, and agrees to perform at its own expense any work which Authority is unable to perform because of lack of such access.

Commission shall exercise reasonable care to avoid damaging the facilities of Authority located on Commission's property and shall pay the cost of any necessary repairs or replacements in the event of loss or damage of such facilities arising from its failure to exercise such reasonable care. Upon termination of this agreement, Authority may, at its option and expense, remove any of its facilities from Commission's property.

19. Security. All employees of Authority engaged in the maintenance or operation of Authority's facilities on Commission's property will be governed by the security regulations and requirements in force at the Paducah Project.

Authority agrees to conform to the security regulations and requirements of the Commission attached to the letter dated July 16, 1951, from S. R. Sapirie, Manager of Oak Ridge Operations of Commission, to John Oliver, General Manager of Authority, and such additions and amendments thereto as the parties may agree.

Except as Commission may authorize, in accordance with the Atomic Energy Act of 1946, as amended, Authority shall not permit any individual to have access to restricted data until the designated investigating agency shall have made an investigation and report to Commission on the character, associations, and loyalty of such individual and Commission shall have determined that permitting such person to have access to restricted data will not endanger the common defense or security. As used in this paragraph the term "designated investigating agency" means the United States Civil Service Commission or the Federal Bureau of Investigation, or both, as determined pursuant to the provisions of the Atomic Energy Act of 1946, as amended by the Act of April 5, 1952, Public Law 298, 82nd Congress, 66 Stat. 43. The term "restricted data," as used in this paragraph, means all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power, except data which Commission from time to time determines may be published without adversely affecting the common defense and security.

If Authority finds that the proximity or relation of the Shawnee Plant to the Paducah Project results in costs for protection of the Shawnee Plant and associated facilities that are in excess of the costs of protection of comparable property of Authority at other locations, Commission shall reimburse Authority for such excess costs if it agrees that the protection measures occasioning such excess costs are desirable.

20. Resale of Power. Commission shall not sell or otherwise dispose of any of the power supplied hereunder except by agreement of the parties; provided, that Commission may furnish limited amounts of power to contractors performing work for Commission at Paducah Project. Use of power in the operation of production plants and associated facilities at the Paducah Project by others on behalf of Commission will not be a violation of this section.

21. Examination of Records. Authority agrees that the Comptroller General of the United States or any of his duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of Authority until the expiration of three years after final payment hereunder, and the same rights of access and examination with respect to any of its subcontractors engaged in the performance of and involving transactions related to subcontracts hereunder until the expiration of three years after final payment with respect to any such subcontract. Nothing in this contract shall be deemed to preclude an audit by the General Accounting Office of any transaction under this contract.

22. Notices. Any notice or demand required by this agreement shall be deemed properly given if duly mailed to the Manager of Power, Tennessee Valley Authority, Chattanooga, Tennessee, on behalf of Authority, or to the Area Manager, Paducah Area, Atomic Energy Commission, Paducah, Kentucky, on behalf of Commission. The designation of the person to be so notified or of the address of such person may be changed at any time and from time to time by similar notice.

23. Waivers. Any waiver at any time by either party hereto of

its rights with respect to the other party or with respect to any other matter arising in connection with this agreement shall not be considered a waiver with respect to any subsequent default or matter.

24. Assignment. This contract is not assignable by either party without the written consent of the other.

25. Restriction of Benefits. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

26. Approval. This agreement shall not be effective until approved by Commission's Director of Production.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their respective officers thereunto duly authorized, as of the day and year first above written.

UNITED STATES OF AMERICA
By: UNITED STATES ATOMIC ENERGY COMMISSION

By S. R. Sapirie
(Title) Manager, Oak Ridge Operations

TENNESSEE VALLEY AUTHORITY

Attest:

Leona LeRoy
Assistant Secretary

By A J Wagner
(Title) Acting General Manager

Approved:

RW Cook
Director of Production
United States Atomic Energy Commission

A 1656

Contract No.
AT-(40-1)-1628
TV-14265A

951.311

OAK RIDGE EXPANSION CONTRACT

Between
UNITED STATES OF AMERICA
Acting by and Through
UNITED STATES ATOMIC ENERGY COMMISSION
And
TENNESSEE VALLEY AUTHORITY

THIS AGREEMENT made and entered into as of the 26th day of March, 1953, by and between UNITED STATES OF AMERICA, acting by and through UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter called "Commission"), and TENNESSEE VALLEY AUTHORITY (hereinafter called "Authority"), a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933 as amended;

WITNESSETH:

WHEREAS, Commission and Authority have heretofore entered into an agreement dated July 1, 1951 (hereinafter called "1951 Contract"), providing for the supply of electric power for the operation of certain of Commission's production facilities in the Oak Ridge Area; and

WHEREAS, Commission has arranged for the construction and operation of additional production facilities in its Oak Ridge Area; and

WHEREAS, Authority is undertaking to expand its system capacity to provide power for such additional production facilities; and

WHEREAS, the parties wish to enter into a long-term agreement for the continuing supply of power and energy by Authority required by Commission for the expansion of its production operations in the Oak Ri
Area;

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DIVISION OF LAW FILES

NOW, THEREFORE, for and in consideration of the premises and of the mutual covenants herein contained, the parties hereto covenant and agree as follows:

1. Term of Contract. This agreement shall become effective as of the date first above written for an initial term expiring on January 1, 1966. Unless this agreement is cancelled by Commission as provided for below, then on January 1, 1966, and on each January 1 thereafter through January 1, 1977, the term of this agreement shall be extended automatically for an additional year unless either party notifies the other that such extension shall not be effected, such notice to be delivered not less than 5 years prior to the date on which such extension would otherwise be effected. It is the intent of the parties that no such notice shall be delivered for the purpose of seeking a change in rates or other conditions because more attractive markets for power or more attractive sources of power may develop.

This agreement may be terminated by Commission, effective on any date not earlier than September 30, nor later than November 30, of any year during the initial term or its extension, upon not less than 51 months' advance written notice to Authority, accompanied by a statement of Commission's intent to reduce permanently below 1,000 mw its total use of power in the Oak Ridge Area.

Unless otherwise agreed, the contract demand hereunder shall be reduced to 400 mw for the last 12-month period prior to any termination or expiration of this agreement and to 650 mw for the 12-month period immediately preceding said last 12-month period.

2. Availability of Power. Subject to the provisions of section 6 of this agreement and the force majeure provisions incorporated

herein by reference under section 14 of this agreement, Authority shall make available to Commission from its system firm power in the amount of the effective contract demand hereunder. The contract demand shall be zero until the initial commercial operation of any one of the generating units listed below, and shall be increased by the respective amounts tabulated below upon the dates of initial commercial operation of the respective units. From and after the date of initial commercial operation of the last of said units, the contract demand shall be 1,030 mw, subject to the provisions of section 1 of this agreement. Authority will endeavor diligently to install the units on a schedule contemplating initial commercial operation by the estimated dates shown or as soon thereafter as the availability of materials and equipment permits.

Estimated Date	Unit	Mw
Dec. 1, 1954	Kingston #7	185
Feb. 1, 1955	Kingston #8	185
June 1, 1955	John Sevier #1	180
Sep. 1, 1955	John Sevier #2	185
Nov. 1, 1955	Gallatin #1	150
Jan. 1, 1956	Gallatin #2	145
		1030

The number used in this contract to identify any generating unit in any plant refers to the order in which said generating unit is placed in initial commercial operation in said plant.

3. Conditions of Delivery. The power supplied hereunder will be delivered as three-phase alternating current at approximately 60 cycles per second at the points of delivery and within the voltage limitations specified in the first paragraph of section 5 of the 1951 Contract, except as otherwise agreed.

Commission shall use power hereunder at a power factor no lower than 95 percent on Commission's 161-kv busses.

4. Determination of Power and Energy Deliveries. Beginning with the date of initial commercial operation of the first of any of the units listed in section 2, the "total energy" used by Commission, and the "total demand" of Commission in any billing period determined in accordance with the provisions of subparagraph (a) of section 4 of the 1951 Contract will include the energy supplied and the demand for power under this agreement. Likewise, the "billing demand" and "billing energy" determined as provided in subparagraphs (b) and (c) of section 4 of the 1951 Contract will include the demand for power and the energy supplied under this agreement; provided, that in applying any adjustment to the billing demand for low power factor in accordance with section 7 (a) of the 1951 Contract, there shall be added to the billing demand in kw any amount by which the kw demand is exceeded by 98 percent of the kva demand (instead of the full difference between the kw and kva demands), adjusted to exclude the effects of reactive power deliveries scheduled by Authority as provided therein.

For each billing period said billing demand and billing energy (exclusive of any excess demand referred to below and the corresponding energy and of any replacement energy under the 1951 Contract) shall be divided between the 1951 Contract and this agreement in proportion to the respective amounts of power Authority was obligated to make available.

Except as otherwise agreed, Authority shall not be obligated to make available any greater amount of power at any time than the effective contract demand hereunder, less any reductions in availability under section 6, plus the power Authority is obligated to make available under the

1951 Contract, and if Commission establishes a greater demand at any time (the excess being hereinafter referred to as the excess demand) it shall, upon Authority's request, promptly discontinue such excess demand. For any billing period in which there is an excess demand, a corresponding proportion of the energy shall be paid for at the price currently applicable to comparable energy sold by Authority on a month-to-month basis. The provisions of subsection (h) of section 4 of the 1951 Contract shall be superseded effective as of the date of the initial operation of the first of any of the units listed in section 2 of this agreement.

5. Rates and Charges. Commission shall pay Authority for power and energy at the following rates:

Capacity Charge. A monthly capacity charge of $1.10 per kilowatt, adjusted as follows, shall be applied to the effective contract demand plus any excess demand, less half the amount of any reductions in the availability of power below the contract demand pursuant to the provisions of section 6. Said capacity charge shall be increased or decreased by one cent for each one percentage point or major fraction thereof by which the average of the Building Cost Index published in the Engineering News Record for the calendar months from January 1953 to June 1955, inclusive, is more or less, respectively, than 405.8 (said Building Cost Index for January 1952).

Energy Charge. Except as provided in section 4, the energy charge shall be 2.15 mills per kilowatt-hour; provided, that for each six-month period beginning with January or July, said energy charge (exclusive of any previous adjustments under the following subparagraphs) shall be subject to adjustment as follows:

(1) Said energy charge shall be increased or decreased by 0.01 mill for each tenth of a cent (or major fraction thereof) that the average cost per million Btu of coal received (unloaded) at all steam plants of Authority except Shawnee in the preceding six-month period ending with June or December is more or less, respectively, than 18½ cents. For convenience, the average Btu content of the coal received during a six-month period may be considered to be the same as the average Btu content of the coal burned during the period; and

(2) Said energy charge shall be increased or decreased by 0.01 mill for each four cents (or major fraction thereof) that the six-month average of Hourly Earnings of Production Workers in Gas and Electric Utility Industries, as compiled by the Bureau of Labor Statistics for the preceding six-month period ending with March or September, is more or less, respectively, than $1.72.

Pending the availability of data required for any of the above adjustments in capacity or energy charges, bills shall be based on Authority's estimates of such data and shall be subject to final adjustment. If publication of any necessary data is suspended, such data shall be determined for the purposes hereof from the best available information.

In the event of any change of 10 mw or more in availability of power during any month, the month will be divided for billing purposes, each billing period comprising the intervals in which the same amounts of power are available, and the capacity charges shall be prorated accordingly.

In the event that Authority is required by any law enacted after January 1, 1953 to pay any amounts for or in lieu of taxes which it would not have been required to pay except for the supply of power hereunder, including without limitation any payments resulting from Authority's ownership or operation of steam electric generating and other facilities required for such supply of power, Commission will reimburse Authority for such payments. Authority will confer with Commission before making any payment for which it would be entitled to such reimbursement in whole or in part.

6. Reduction in Available Power at Commission's Request. At any time while the contract demand hereunder is 1,030 mw, Commission shall have the right, upon notice as provided below, to reduce temporarily be-

low the contract demand the amount of power to be made available hereunder, with resultant savings in capacity charges as provided in section 5; provided, that unless otherwise agreed, Commission shall not so reduce the amount of power to be made available hereunder below 800 mw. At any time after such reduction has become fully effective, Commssion may require resumption of availability, in whole or part, upon notice as provided below.

Unless otherwise agreed, Commission shall give Authority written notice of the total amount of any such reduction or resumption, any reduction shall become effective in monthly steps of 20 mw (or, in the case of the last step, any remaining fraction of 20 mw), any resumption shall become effective in monthly steps of 10 mw (or in the case of the last step, any remaining fraction of 10 mw), and the first step in any reduction or resumption shall occur at the beginning of the second calendar month following that in which the notice is given, or such later month as may be specified in the notice. No notice under this section shall be given before the reduction or resumption requested in any earlier notice under this section becomes fully effective.

The 1951 Contract is hereby amended to provide that the "normal power" available thereunder may be reduced by Commission at any time, on at least one week's advance written notice to Authority, from 700 mw to any amount between 675 and 700 mw for any specified period of from one to six calendar months.

7. Changes in Availability of Power. Upon the request of either party at any time, the parties shall consider together whether it may be mutually advantageous to agree upon terms whereby the amount of power available would be increased or decreased permanently or for some

temporary period, with appropriate changes in the charges. Any such agreement of the parties shall be reduced to writing.

8. Commission's Estimates of Requirements. On January 1 and July 1 of each year Commission shall furnish Authority with preliminary estimates of Commission's total power and energy use in the Oak Ridge Area for each of the succeeding 24 months, and with information as to any prospective substantial changes in the level of power use thereafter. During the period of this agreement section 3 of the 1951 Contract shall not be applicable.

9. Amendment of Agreement. If at any time either party finds that a situation or condition has developed which, in its judgment, calls for a change in the provisions of this agreement to correct inequities, it shall advise the other party of the facts and propose an amendment to give appropriate recognition to the changed situation or condition. Upon agreement as to an appropriate amendment, this agreement shall be modified accordingly, effective as of the date notice of such situation or condition was given.

In recognition of the fact that Authority has no right to terminate this agreement in advance of the date of expiration, Commission pledges itself to give full recognition to any changed condition or situation brought to its attention by Authority and to endeavor to reach agreement with Authority as to equitable contract changes. It is not the purpose of this section to permit either party to seek a change in rates or other conditions because more attractive markets for power or more attractive sources of power may develop.

10. Term Coal Purchases. In order to be prepared to deliver power hereunder, it is desirable for Authority to enter into contracts for

term purchases of coal. Commission agrees to reimburse Authority for any loss suffered by Authority as a result of such contracts to the extent that such loss is caused by Commission's using less energy hereunder for any reason than Authority could reasonably expect when the coal was purchased, on the basis of estimates furnished Authority by Commission. Authority shall use its best efforts to minimize such loss.

11. Billing and Payment. Authority will bill Commission monthly. Payment shall be made by Commission within 20 days from the date of bill, at Authority's offices at Chattanooga, Tennessee, or at such other place as Authority may designate. Payments will be subject to the adjustments provided for herein and correction of errors in billing disclosed by post-payment audit.

12. Security. All employees of Authority engaged in the maintenance or operation of Authority's facilities on Commission's property will be governed by the security regulations and requirements in force at the Paducah Project.

Authority agrees to conform to the security regulations and requirements of the Commission attached to the letter dated July 16, 1951, from S. R. Sapirie, Manager of Oak Ridge Operations of Commission, to John Oliver, General Manager of Authority, and such additions and amendments thereto as the parties may agree.

Except as Commission may authorize, in accordance with the Atomic Energy Act of 1946, as amended, Authority shall not permit any individual to have access to restricted data until the designated investigating agency shall have made an investigation and report to Commission on the character, associations, and loyalty of such individual and Commission shall have determined that permitting such person to have access to restricted data will not endanger the common defense or security. As used in this paragraph the term "designated investigating agency" means the United States Civil Service Commission or the Federal Bureau of Investigation, or both, as determined pursuant to the provisions of the Atomic Energy Act of 1946, as amended by the Act of April 5, 1952, Public Law 298, 82nd Congress, 66 Stat. 43. The term "restricted data," as used in this paragraph, means all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power, except data which Commission from time to time determines may be published without adversely affecting the common defense and security.

13. Examination of Records. Authority agrees that the Comptroller General of the United States or any of his duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of Authority until the expiration of three years after final payment hereunder, and the same rights of access and examination with respect to any of its subcontractors engaged in the performance of and involving transactions related to subcontracts hereunder until the expiration of three years after final payment with respect to any such subcontract. Nothing in this contract shall be deemed to preclude an audit by the General Accounting Office of any transaction under this contract.

14. Provisions Incorporated by Reference. The provisions of sections 9, 11 and 12, section 14 (except the second paragraph) and sections 16 through 22 of the 1951 Contract are incorporated herein by reference as fully as if set forth in full in this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their respective officers thereunto duly authorized, as of the day and year first above written.

UNITED STATES OF AMERICA

By: UNITED STATES ATOMIC ENERGY COMMISSION

By S. R. Sapirie
(Title) Manager, Oak Ridge Operations

Attest:

TENNESSEE VALLEY AUTHORITY

Leona LeRoy
Assistant Secretary

By
(Title) Acting General Manager

Law

APPROVED:

Director of Production
United States Atomic Energy Commission

A 1667

UNITED STATES
ATOMIC ENERGY
COMMISSION

URANIUM ENRICHMENT ACTIVITY FINANCIAL STATEMENTS

FOR THE
FISCAL YEAR ENDED JUNE 30, 1974

PX 46

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

A 1668

January 14, 1972

Chairman Schlesinger
Commissioner Ramey
Commissioner Johnson
Commissioner Larson
Commissioner Doub

FY 1971 FINANCIAL STATEMENTS

Presented herewith are financial statements of the uranium enrichment activity for the Fiscal Year ended June 30, 1971, consisting of the exhibits and schedules listed below.

	Exhibit & Schedule	Page No.
Introduction..........................		2
Balance Sheets - June 30, 1971 and 1970	I	4
Income Statement for Fiscal Year Ended June 30, 1971..................	II	5
Changes in Government Investment.......	III	6
Source and Disposition of Funds........	IV	7
Notes to Financial Statements..........		8
Schedules containing details of:		
Separative Work Inventories..........	A	9
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Costs of Production and Sales........	C	11
Power Costs..........................	D	12

John P. Abbadessa
Controller

A 1669

INTRODUCTION

The Atomic Energy Commission, an independent agency responsible to the President and the Congress, was established by the Atomic Energy Act of 1946. In 1954, the functions and responsibilities of the Atomic Energy Commission were expanded to provide greater emphasis on the development and application of the peaceful uses of atomic energy. Subsequently, the Private Ownership of Special Nuclear Materials Act of 1964 authorized the Atomic Energy Commission to offer services for enriching privately owned uranium in uranium-235 under long-term contracts beginning January 1, 1969. That Act also provided that the Commission establish criteria (Uranium Enrichment Services Criteria) setting forth the terms and conditions under which enriching services are made available, including the requirement that prices will be established on the basis of providing reasonable compensation to the Government. The Act was amended December 19, 1970, to clarify that prices will be established on a basis of recovery of the Government's costs over a reasonable period of time.

In recognition of the increasing importance of the uranium enrichment activity (UEA) and in order to provide the public with information concerning the operations and financial position of UEA, the Commission will publish annual financial statements beginning with this report covering Fiscal Year 1971. These statements supplement AEC's published annual financial report.

It is important to understand there is no distinct uranium enrichment enterprise or separate organizational entities, either within or apart from AEC. In preparing these financial statements, reliance has been placed upon the accounting records maintained by the AEC and its operating contractors. Data from the accounting records have been supplemented by including imputed interest costs of the Government and imputed revenues for distributions of enriching services to the AEC at the same charge that is applicable to other customers. There is divided opinion in the accounting profession as to the propriety of imputing costs and revenues in the preparation of formal financial statements; however, it has been concluded that the inclusion of such data is necessary in order to provide more meaningful financial information to the public.

It is also important to understand that the selection of methods for calculating imputed costs and revenues is subject to judgment and, inherently, can involve varying points of view. Accordingly, an effort has been made to fully disclose in the financial statements the amounts of imputed interest and revenues that have been included.

In preparing these statements special consideration was necessary in establishing opening balances as of June 30, 1970, particularly with respect to the asset accounts "Separative Work Inventories" and "Unrecovered Interest on Government Investment." The values established for the opening balances as of June 30, 1970, are based on accumulated costs and revenues since the start of preproduction of separative work in May 1964 including, where applicable, imputed costs and revenues as discussed above. Because of the varying judgments that can be involved in establishing such values, computations were made using alternative accounting and economic methods in order to test the validity of the amounts established for these accounts. The results of these computations led to the conclusion that the valuation methods selected are appropriate and the amounts as of June 30, 1970, are fairly presented.

Under the Uranium Enrichment Services Criteria established pursuant to the law, the portion of depreciation and interest on plant investment applicable to plants in standby and the portion of depreciation and interest on plant investment properly applicable to excess capacity during periods when the plants are operating at less than capacity are excluded from UEA costs. During Fiscal Year 1971, the plants were operated at approximately 40 percent of capacity. The amounts of depreciation and interest excluded from UEA costs in Fiscal Year 1971 are disclosed in the financial statements.

Within the legislative framework discussed in the first paragraph of this Introduction, the price was initially established at $26.00 per unit of separative work. This price was subsequently increased to $28.70 on February 22, 1971, and to $32.00 on November 14, 1971. The current $32.00 price contemplates the recovery of Government costs over the ten-year period Fiscal Year 1971 through Fiscal Year 1980. Throughout this period, revenues received and the production capacity utilized are projected to increase over FY 1971 levels.

The accompanying financial statements report on the financial aspects of producing and supplying uranium enrichment services. Fundamental to this activity is the use by UEA of customer-owned feed material. Feed material is provided by commercial customers for enrichment and is part of the finished product delivered to customers. Feed material is supplied by the AEC for enrichment, both for the finished product needed by AEC and for the preproduced inventory retained by UEA to meet future nuclear power fuel needs. The feed material furnished by both commercial customers and AEC is disclosed in the balance sheet in contra accounts in order to reflect the magnitude of feed material involved and UEA's responsibility to return such feed to its customers as part of the finished product.

The operation of a uranium enrichment activity of this magnitude involves significant contractual commitments over and above the financial data included in the accompanying financial statements for Fiscal Year 1971. Many of the enrichment services supply contracts which have been entered into with domestic and foreign customers provide for long-term deliveries up to 30 years; services under the supply contracts total almost 140 million units of separative work and over $4 billion at the current $32.00 price. Existing contractual arrangements for the long-term supply of electricity involve commitments for about 5,000 megawatts by 1976 which at current prices would be about $240 million a year. Further commitments for electric power supply are planned to permit full capacity production.

A 1670

A 1671

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

EXHIBIT 1

BALANCE SHEETS

June 30, 1971 and 1970

Assets	1971	1970
	(thousands)	
Cash (note 1)		
Funds in U.S. Treasury	$ 55,317	$ 25,535
Cash with contractors	419	378
	55,736	25,913
Accounts receivable		
Trade, domestic	7,632	5,930
Trade, foreign	2,180	2,981
	9,812	8,911
Inventories (note 2)		
Uranium		
Separative work (schedule A)	286,658	313,170
Feed material (see contra below)	595,872	536,912
	882,530	850,082
Production stores and process spare parts	16,425	15,603
Less: Allowance for obsolescence or loss	3,965	3,665
	12,460	11,938
	894,990	862,020
Plant (schedule B)		
Completed plant and equipment	2,048,034	2,044,334
Less: Accumulated depreciation	1,043,560	985,695
	1,004,474	1,058,639
Construction work in progress	6,532	5,346
	1,011,006	1,064,035
Prepayments and deposits	2,028	1,759
Unrecovered interest on Government investment (note 4)	80,153	87,604
Total assets	$2,053,725	$2,050,242
Liabilities and Government Investment		
Accounts payable and accrued expenses	$ 13,478	$ 5,356
Uranium feed material (see contra above)		
Furnished by toll enriching customers	102,299	49,778
Furnished by Atomic Energy Commission	493,573	487,134
	595,872	536,912
Total liabilities	609,350	542,268
Government investment (exhibit III)	1,444,375	1,507,974
Total liabilities & Government investment	$2,053,725	$2,050,242

Notes 1 through 5 following the exhibits are an integral part of the financial statements.

EXHIBIT II

A 1672

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

INCOME STATEMENT

Fiscal Year ended June 30, 1971

	(thousands)		Per Unit of Separative Work Sold
Revenues from enriching services			
Domestic, trade	$114,091		
Foreign, trade	71,515		
AEC programmatic activities	50,403	$236,009	$26.71
Cost of separative work sold (schedule C)		184,575	20.89
Gross margin on sales		51,434	5.82
Operating expense			
Process development	8,406		
Startup, shutdown and standby costs	553		
Processing of tails residues for storage	239		
Preparation of materials for shipment	1,057		
AEC administration	3,668		
Security investigations	211		
Community support	397		
All other expenses	864		
Depreciation expense (note 3)	1,170	16,565	1.87
Net operating income		34,869	3.95
Interest on Government investment allocated to current operations (note 4)		53,523	6.06
Deficit for fiscal year		$ 18,654	$ 2.11

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EXHIBIT III

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

CHANGES IN GOVERNMENT INVESTMENT

Fiscal Year ended June 30, 1971

	Invested Capital	Accumulated Deficit	Total Government Investment
	(thousands)		
Government investment, July 1, 1970	$1,510,749	$ 2,775	$1,507,974
Increases:			
AEC appropriations provided to UEA	177,435	—	177,435
Interest on Government investment	46,072	—	46,072
	223,507	—	223,507
Decreases:			
Deficit on FY 1971 operations (exhibit II)	—	18,654	18,654
Trade customer receipts transferred to AEC	184,705	—	184,705
Transfers of separative work to AEC	50,403	—	50,403
Depreciation on excess capacity (note 3)	32,898	—	32,898
Transfers and adjustments between UEA and AEC	446	—	446
	268,452	18,654	287,106
Government investment June 30, 1971	$1,465,804	$21,429	$1,444,375

EXHIBIT IV

A 1674

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

SOURCE AND DISPOSITION OF FUNDS

Fiscal Year ended June 30, 1971

	(thousands)
Source:	
Income from sales to trade customers	$185,606
AEC appropriations provided to UEA	177,435
	$363,041
Disposition:	
Trade customer receipts transferred to AEC	$184,705
Changes in working capital	23,679
Manufacturing and other expense requiring funds	148,204
Purchase of plant and equipment	6,453
	$363,041

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U.S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

NOTES TO FINANCIAL STATEMENTS

1. Funds in U.S. Treasury represent the amount of unpaid obligations under contracts for operating the three gaseous diffusion plants and contracts for electrical power procurement, plus unexpended appropriations for authorized capital projects. Cash with contractors includes bank account balances and cash drawer funds at the reporting dates.

2. Inventories are generally stated at average cost. The feed material components of uranium inventories is offset in liabilities.

3. Depreciation expense is calculated on a straight line basis in accordance with established standard service lives.

   Under the Uranium Enrichment Services Criteria established pursuant to law, the portion of depreciation applicable to standby and the portion of depreciation applicable to excess capacity during periods the plants are operating at less than 75 percent capacity are excluded from UEA costs. The accounting treatment of depreciation in these statements follows:

	(thousands)
Depreciation on capacity utilized (Schedule C)	$24,132
Depreciation on standby and excess capacity (Exhibit III) ...	32,898
Depreciation on non-production facilities, not subject to above exclusion (Exhibit II)	1,170
Total	$58,200

4. The calculation of imputed interest on Government investment for the period is based on the current average interest rate payable by the U.S. Treasury on its total marketable public obligations. The interest calculated for the period plus the unrecovered interest from prior periods is allocated between current period costs and unrecovered costs carried forward to future periods on the basis of the ratio of separative work units sold to the total separative work units available for sale. The accounting treatment of imputed interest in these statements follows:

		(thousands)
Beginning balance, unrecovered interest on Government investment (Exhibit I)		$ 87,604
Interest on Government investment for period (Exhibit III)		
Working capital	$ 458	
Plant and equipment	24,105	
Preproduced inventory	21,509	46,072
Total unrecovered interest to be allocated		133,676
Allocation to current operations (Exhibit II)		53,523
Ending balance (Exhibit I)		$ 80,153

Under the criteria established pursuant to law, the exclusions pertaining to standby and excess capacity are applicable to interest on plant investment as well as to depreciation. The amount of imputed interest excluded under this provision for the current period is $35.6 million.

5. The allowance for feed material losses takes into consideration measured losses, materials discarded as uneconomical to reprocess, and uranium not otherwise accounted for in material balances. This allowance has been established on the basis of experience over the past nine-year period.

SCHEDULE A

A 1678

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

SEPARATIVE WORK INVENTORIES

June 30, 1971 and 1970

	Separative Work Units (thousands)	Cost (thousands)	Per Unit of Separative Work
June 30, 1971			
Work in process	434	$ 10,248	$23.61
Finished product:			
Preproduced inventory	10,278	214,704	
Awaiting delivery to AEC and other customers	2,954	61,706	
	13,232	276,410	20.89
Total June 30, 1971	13,666	$286,658	
June 30, 1970			
Work in process	534	$ 11,344	$21.24
Finished product:			
Preproduced inventory	13,672	269,218	
Awaiting delivery to AEC and other customers	1,656	32,608	
	15,328	301,826	19.69
Total June 30, 1970	15,862	$313,170	

A 1677

SCHEDULE B

U. S. ATOMIC ENERGY COMMISSION.
URANIUM ENRICHMENT ACTIVITY

PLANT AND EQUIPMENT

June 30, 1971

	Acquisition Cost	Accumulated Depreciation	Net Investment
		(thousands)	
OAK RIDGE			
Completed plant and equipment:			
Land and land improvements	$ 15,296	$ 5,271	$ 10,025
Buildings and structures	99,392	46,100	53,292
Equipment and utilities	410,666	228,559	182,107
	525,354	279,930	245,424
Construction work in progress	3,977	—	3,977
Total plant and equipment	529,331	279,930	249,401
PADUCAH			
Completed plant and equipment:			
Land and land improvements	17,913	7,431	10,482
Buildings and structures	178,430	75,020	103,410
Equipment and utilities	562,111	304,210	257,901
	758,454	386,661	371,793
Construction work in progress	1,562	—	1,562
Total plant and equipment	760,016	386,661	373,355
PORTSMOUTH			
Completed plant and equipment:			
Land and land improvements	15,673	5,348	10,325
Buildings and structures	159,651	69,187	90,464
Equipment and utilities	588,902	302,434	286,468
	764,226	376,969	387,257
Construction work in progress	993	—	993
Total plant and equipment	765,219	376,969	388,250
TOTAL CASCADE COMPLEX			
Completed plant and equipment:			
Land and land improvements	48,882	18,050	30,832
Buildings and structures	437,473	190,307	247,166
Equipment and utilities	1,561,679	835,203	726,476
	2,048,034	1,043,560	1,004,474
Construction work in progress	6,532	—	6,532
Total plant and equipment	$2,054,566	$1,043,560	$1,011,006

SCHEDULE C

A 1678

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

COSTS OF PRODUCTION AND SALES

Fiscal Year ended June 30, 1971

	Separative Work Units (thousands)	Costs (thousands)	Per Unit of Separative Work
Enrichment operations			
Power costs (schedule D)		$ 92,707	$13.96
Direct and indirect labor		4,025	0.61
Maintenance services		6,453	0.97
Engineering support		1,686	0.25
Decontamination and uranium control		2,332	0.35
Plant test program		8,013	1.21
Lighting, water and other utilities		4,263	0.64
Depreciation expense (note 3)		24,132	3.63
Operating supplies and expense		1,156	0.18
General plant services		2,866	0.43
Other overhead		4,196	0.63
All other general and administrative		5,614	0.85
Allowance for feed material losses (note 5)		620	0.09
	6,640	158,063	23.80
Add: Beginning work in process inventory	534	11,344	21.24
	7,174	169,407	23.61
Less: Ending work in process inventory	434	10,248	23.61
Cost of finished production	6,740	159,159	23.61
Add: Beginning finished product inventory	15,328	301,826	19.69
Cost of separative work available for sale	22,068	460,985	20.89
Less: Ending finished product inventory	13,232	276,410	20.89
Cost of separative work sold (Exhibit II)	8,836	$184,575	$20.89

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SCHEDULE D

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

POWER COSTS

Fiscal Year ended June 30, 1971

	Kilowatt Hours	Cost	Mills per KWH
	(thousands)		
OAK RIDGE			
TVA purchased power	4,726,339	$24,722	5.23
Distribution cost	—	1,214	
Use tax	—	247	
Total available	4,726,339	26,183	
Charges to other users	883,907	4,849	
Net charges to cascade	3,842,432	21,334	5.55
PADUCAH			
TVA purchased power	5,628,919	27,118	4.82
EEI purchased power — 235 MW contract	1,659,602	9,584	5.77
EEI purchased power — 500 MW contract	2,811,112	14,528	5.17
Distribution cost	—	1,211	
Total available	10,099,633	52,441	
Charges to other users	114,756	592	
Net charges to cascade	9,984,877	51,849	5.19
PORTSMOUTH			
OVEC purchased power	3,864,853	18,548	4.80
Distribution cost	—	1,407	
Total available	3,864,853	19,955	
Charges to other users	87,144	431	
Net charges to cascade	3,777,709	19,524	5.17
Total charges to cascade	17,605,018	$92,707	5.27

U. S. GOVERNMENT PRINTING OFFICE : 1971 [illegible]

A 1680

Con Edison 1970 Annual Report

PX 47

A 1681

Highlights of 1970

	Year Ended December 31st 1970	1969
Revenues	$1,128 million	$1,027 million
Net income for common stock	$ 94.2 million	$101.0 million*
Earnings per common share	$ 2.30	$ 2.68*
Dividends per common share	$ 1.80	$ 1.80
Common shares outstanding	42.4 million	39.2 million
Book value per common share	$30.85	$31.10*
Revenues and sales volume	(in millions)	(in millions)
Electric —32.4 Billion kwh (up 6.9%)	$ 952	$ 862
Gas —68.9 Billion cu. ft. (up 11.9%)	117	110
Steam —36.9 Billion pounds (up 6.6%)	56	52
Other	3	3
Taxes, other than federal income		
Local	$ 209	$ 190
State	42	38
Federal	9	9
Total	$ 260	$ 237
Utility plant, less accumulated depreciation	$4,107 million	$3,805 million
Construction expenditures	$ 401 million	$ 305 million
Employees	23,726	23,428

*Restated, see Note B to Financial Statements.

The Cover

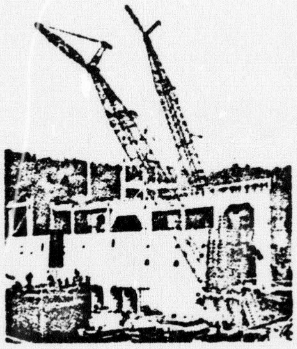
Strain shows on faces of workmen as they struggle with long round-the-clock repair job on Ravenswood Unit No. 3.

2. To The Stockholders

The Chairman and President discuss earnings, power supply, new sales policies, the environment and R&D.

4. Sales, Operations and Maintenance

Sales were up in 1970 and despite breakdowns we were able to supply loads with little inconvenience.

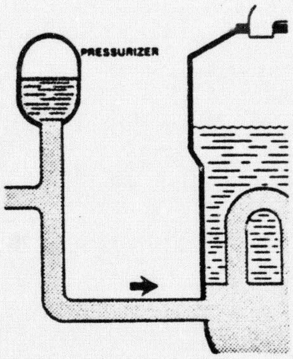


6. New Power Supply

Pictures and data describe the Company's current five-year $2.5 billion construction program.

10. New Customer Construction

New office buildings, dwelling units and redevelopment projects will increase loads without promotion.



14. How They Work

Diagrams and text on how gas turbines and nuclear power plants differ from conventional power plants.

18. Financial Review

Details on earnings, dividends, costs, rates and the $438 million worth of financing in 1970.

A supplement containing additional financial and operating data may be obtained by writing to the Treasurer's Office.

TO THE STOCKHOLDERS

A 1683

In 1970 earnings were $2.30 per share, or 38 cents below 1969 as restated. Half of the drop was caused by the large increase in the number of shares outstanding, the other half by higher costs for fuel, purchased energy, labor, materials, taxes and borrowed money. The dividend on Common stock remained at $1.80.

In recognition of the rising cost of supplying electricity, the New York Public Service Commission in 1970 approved electric rate increases totalling approximately $102.1 million per year, of which $90.4 million became effective on September 8 and $11.7 million on October 1. It also approved steam rate increases totaling approximately $7.5 million per year, effective January 4, 1971. Of these rate increases only $27.3 million was reflected in 1970 gross revenues. On September 21, 1970, we filed an application with the Public Service Commission for an average 11 percent gas rate increase, which it is reasonable to expect will be acted upon by September, 1971. If granted in full it would increase gas revenues by $12.4 million per year.

Offset against these future revenue gains will be increases in operating costs and taxes. A major increase anticipated is the cost of a new labor contract which was being negotiated at year's end to replace the contract expiring on March 10, 1971. We shall take any further action necessary to attain a fair rate of return for the investors in our Company when revenues are not sufficient to cover increasing costs.

Power Supply

Despite unprecedented problems we met the essential electric energy needs of New York City and Westchester throughout 1970, but not without marked increases in our expenses.

Equipment failures at the one-million-kw Ravenswood No. 3 unit and the 265,000-kw Indian Point Nuclear Unit No. 1 took 14 percent of our installed capacity off the line for many months. On peak load days in July, August and September we imported power to the maximum capacity of transmission facilities at substantial added expense. And we relied heavily on the nearly one million kilowatts of new gas turbine capacity installed during the year to meet peak demands. Although we were forced to reduce voltage for a few hours on each of 15 summer days, we resorted to "load shedding" (intentional disconnecting of customers) on only one day, September 22, and then only as to approximately one percent of our customers for periods of 45 minutes to three hours.

1971 Outlook . . .

The power supply situation for the remainder of 1971 is difficult to predict, but reserves certainly will be lower than desirable. Indian Point No. 1 returned to service February 8, and by summer we expect to have an additional 750,000 kw of gas turbine capacity. But as we went to press, the one-million-kw Ravenswood No. 3 unit was still being repaired, and was not expected in service before April 15. And it appears that opposition by several groups which have intervened before the AEC to object to the granting of an operating license may delay the start-up of Nuclear Unit No. 2 at Indian Point with initial capacity of 873,000 kw. But for the cumulative effect of the opposition of various groups to major new power facilities of almost every description, Con Edison's power reserves would have been ample in both 1970 and 1971.

. . . And Beyond

The ambitious construction program we have under way is described in a separate section of this report. In addition to more gas turbines and Indian Point No. 2 in 1971, about 3 million kw of new capacity will come on the line between late 1972 and 1975. This will enable us not only to meet the growth in demand, but also by 1975 to retire nearly 1.5 million kw of older generating capacity. The result is that by 1975 we should have one of the most modern and clean electric systems in the United States.

Our present plans for increased electric generation beyond 1975 are principally nuclear and pumped storage. In addition, we are seeking to purchase wholesale power from the New York State Power Authority, and are exploring new opportunities for exchanges of

Louis H. Roddis, Jr.
President

power with other utilities in the U.S. and Canada. In 1970 we won another approval from the Federal Power Commission to build the 2-million-kw Cornwall Pumped Storage Project. Interveners have again challenged the new license in the courts.

Power Conservation

In response to what we believe are the real interests of our Company and the people it serves, we have put into effect a Company policy of encouraging our customers to conserve energy not only in the summer but in all seasons.

Our sales philosophy will be: "Use the energy you need for healthful and pleasant living, but do not waste." Thus, for 1971 all sales promotion has been discontinued. Nevertheless, our rate structure will continue to offer reduced rates for electric heating in recognition of its off-peak advantage, and we will continue to offer technical advice to customers on the use and the comparative costs of the energy we sell.

While we will encourage conservation of energy, new load projections show that Con Edison will continue to be a growth company at the annual rate for electric loads of approximately 4½ to 5 percent. Electric loads for 1975 have been revised upwards by 325,000 kw to a new total of 9,850,000 kw and new estimates for 1980 loads are about 775,000 kw more than previous estimates, or a new total of 12,100,000 kw. Through 1980 growth in sendout for the gas system is estimated at 4 to 5 percent, and for the steam system approximately 3 percent.

The Environment

Concern for protecting the environment continues to have high priority in our planning and operations.

Our Bureau of Environmental Engineering, created in 1969 with three professionals, has grown to 17, including specialists in air pollution control, water quality, fish life, and noise. Their recommendations carry great weight in our planning.

Seven major environmental studies were underway at year's end. Four were carry-overs and three new ones were started. One new study explores the environmental feasibility of placing nuclear or fossil generating stations on artificial islands in the Lower Bay or Long Island Sound. The second is a review of chemical discharges from all our plants with the aim of reducing them to levels below existing minimum federal, state and municipal standards. The third seeks to achieve a better solution to the fish problems at Indian Point.

Research & Development

We have employed a Director of Research and are stepping up our R&D efforts. In 1971 we will spend $3 million on R&D compared to about $2 million in 1970 and less in previous years. In addition to funding the environmental studies, the expenditures will go for joint projects with other investor-owned utilities to develop a Fast Breeder Reactor, extra-high voltage underground transmission and MHD (magnetohydrodynamics), a method of generating electricity which substitutes a high-temperature gas stream (plasma) for the rotating components of a conventional turbine generator.

Conclusion

Your management's program to revitalize Con Edison, to modernize its plant, to improve the quality of its service, and to provide a fair return to its investors is well underway. We deeply appreciate the loyalty and support of our stockholders as we move closer to accomplishing these goals. And we pledge our strongest efforts on behalf of our investors, as well as our customers, to make this program a reality.

Charles F. Luce

Charles F. Luce
Chairman of the Board

Louis H. Roddis, Jr.
President

Charles F. Luce
Chairman of the Board

REVIEW OF OPERATIONS

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Sales

In 1970 our sales goals were selective. Principally they were concentrated on residential heating with electricity and gas, and on security lighting. The results, along with normal load growth, were substantial increases in sales of electricity, gas and steam.

Twenty-six percent of new private houses and 31 percent of new apartment dwelling units in our service area chose electric heat in 1970, compared to 9 percent for each category in 1969. Likewise, conversions of existing homes and apartments to electric heat were up dramatically in 1970—1,862 dwelling units in all, or 150 percent more than in 1969.

Where the builder's choice was between gas heat and oil heat, cleaner and more economical gas continued to win in almost every case. The total number of dwelling units choosing gas in 1970 was 4,441, about the same as in 1969. Conversions from oil to gas continued strong in 1970 too. Gas conversions totalled 19,000 dwelling units, up 35 percent. New contracts for interruptible gas signed in 1970 will bring in $2 million dollars additional revenue annually.

Changing needs of society in regard to energy conservation and environmental protection, and practical difficulties of constructing new facilities of all kinds, prompted a decision early in 1971 to discontinue all sales promotion. Normal load growth will produce all the new business we can supply. In fact our most recent forecasts — nearly 5 percent increase per year in peak demand—indicate that growth in electricity demands will be somewhat greater than forecast a year ago.

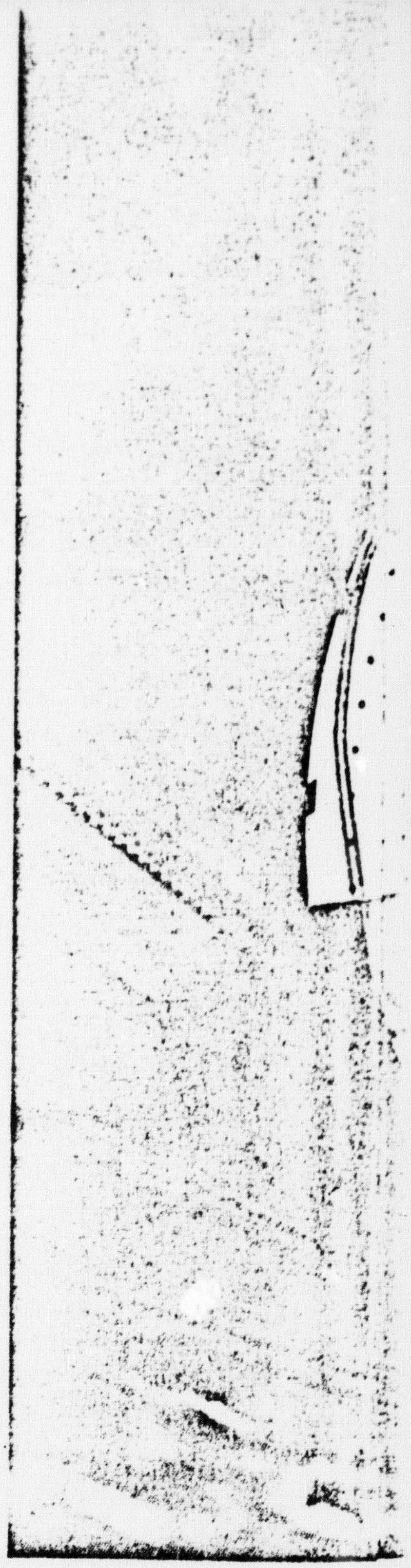
Operations and Maintenance

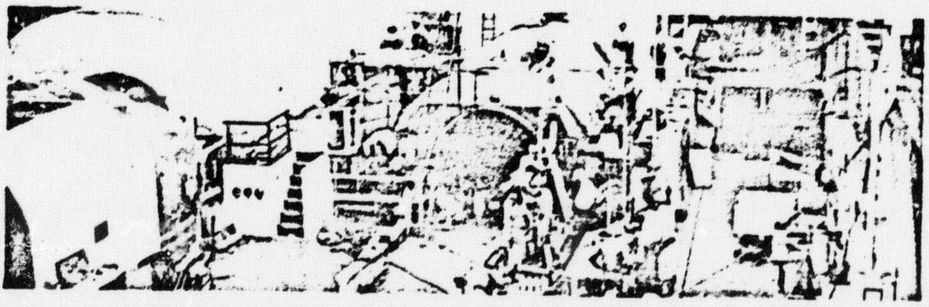
The big utility operations story of 1970 was that despite breakdowns of Indian Point Nuclear Unit No. 1 and Ravenswood Unit No. 3, we were able to meet the essential electric needs of New York City and Westchester throughout the long hot summer with little inconvenience to the 9 million people who rely on us.

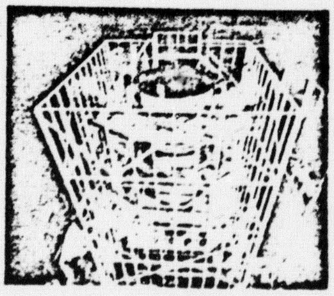
At Indian Point No. 1, a 265,000-kw nuclear unit now eight years old, a problem developed in the primary cooling system's piping which required the plant to be shut down on May 20, 1970. Tests showed that the problem was caused by a defective heat shield installed to protect a weld where a 4-inch pipe carrying make-up water connects to the main 24-inch primary coolant pipe. The plant went back in service February 8, 1971.

Ravenswood No. 3, a one-million-kw machine, is the largest generating unit on our system, and one of the largest in the United States. Because of vibration problems in the stator of the high pressure generator, we decided in the spring of 1970 to order a new stator with delivery time of 18 months.

Unhappily the faulty stator failed completely on July 21, 1970. Because we could not accept a loss of Ravenswood No. 3 for the lengthy period until the new stator was delivered, we decided to rebuild the damaged stator from the ground up. It appears that it cannot return to service before April 15, and possibly even later. We have not cancelled the order for the new stator, and we plan to install it as soon after its delivery as we can. The manufacturer of the original stator has allowed us a credit equivalent to the full cost of the new stator.







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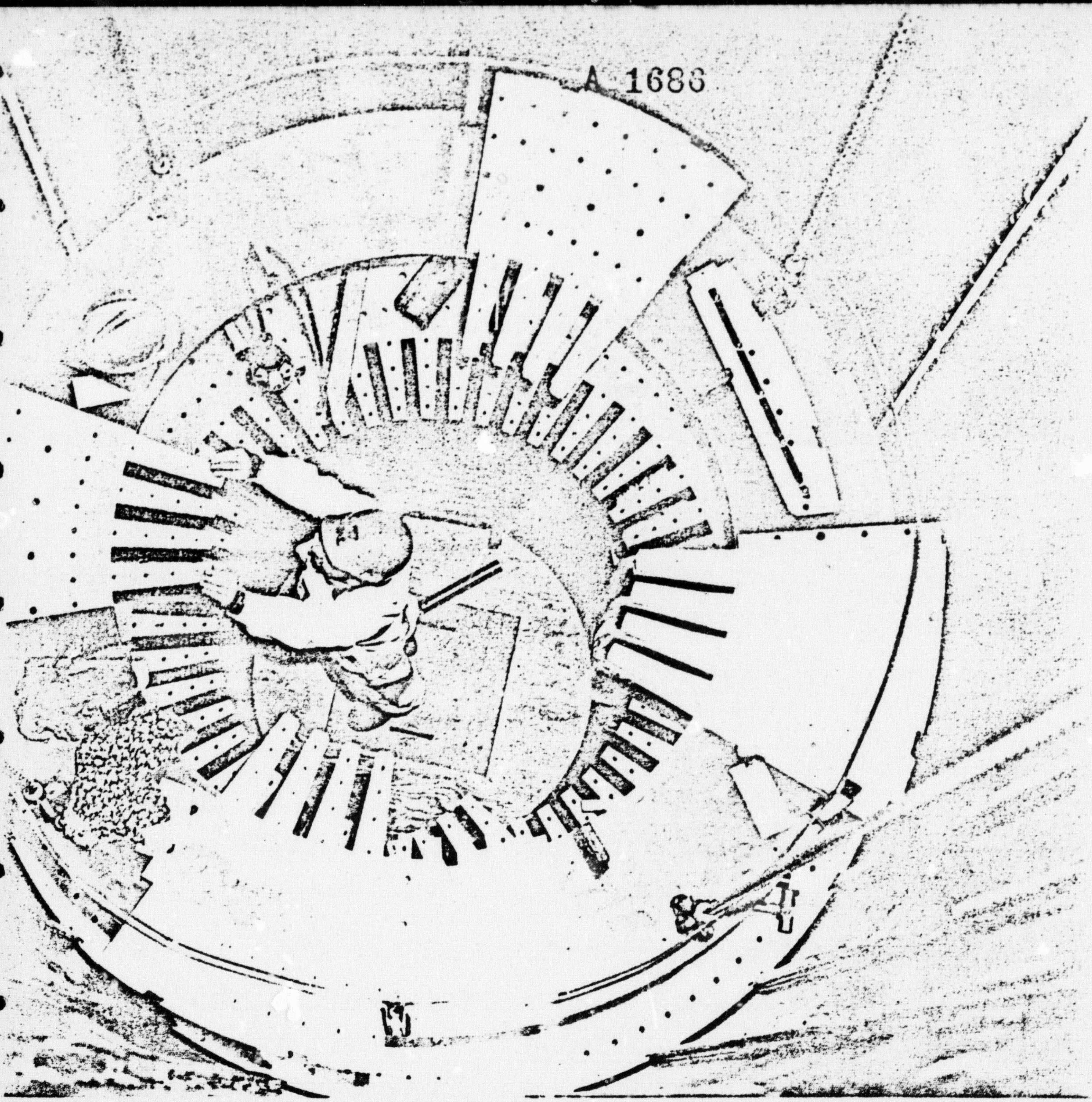


Our biggest generator, Ravenswood No. 3, is expected to be back in service in time for summer peaks of 1971. It burned out July 21, 1970. After 6-month rebuild job, it suffered lesser damage during start-up tests January 24, 1971, requiring further work that was still underway at press time.

Above: workman stacks one of 175,000 separate laminations comprising new core. Left: stator on end for core stacking. Far left: overall view shows size of unit compared to men.

New Power Supply

Key elements in our current five-year, $2.5 billion construction program are pictured on these and the next two pages.

The program is a mixture of oil-fired gas turbine peaking units and oil-fired and nuclear base load plants that should enable us to retire nearly 1.5 million kw of older capacity by 1975, as well as to meet loads forecast for 1974 and 1975 with adequate reserves. In the three intervening years, our reserve will depend principally upon the outcome of pending environmental objections to new power facilities, and upon the performance of the old units on our existing system already overdue for retirement.

Our current five-year electric construction program includes placing in service the following major generating plants and interconnections in the years indicated:

1971—Gas turbines, largely barge-mounted, 750,000 kw.

Indian Point Nuclear Unit No. 2, 873,000 kw initially.

Pennsylvania-Jersey-Maryland 345 kv tie to PJM 500 kv system.

1972—Bowline oil-fired Unit No. 1, 400,000 kw (Con Edison's share of plant being built jointly with Orange & Rockland).

Roseton oil-fired Unit No. 1, 240,000 kw (Con Edison's initial share of plant being built jointly with Central Hudson and Niagara Mohawk).

345 kv tie with Public Service Electric & Gas of New Jersey.

345 kv Southern Tier tie with New York State Electric & Gas and Central Hudson.

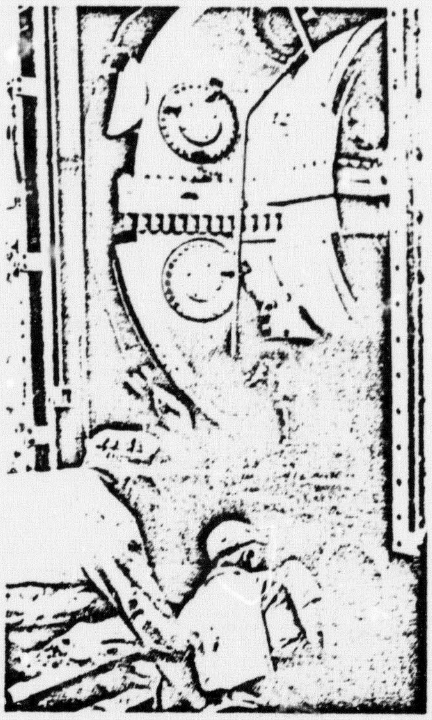
1973—Roseton oil-fired Unit No. 2, 240,000 kw (Con Edison's share).

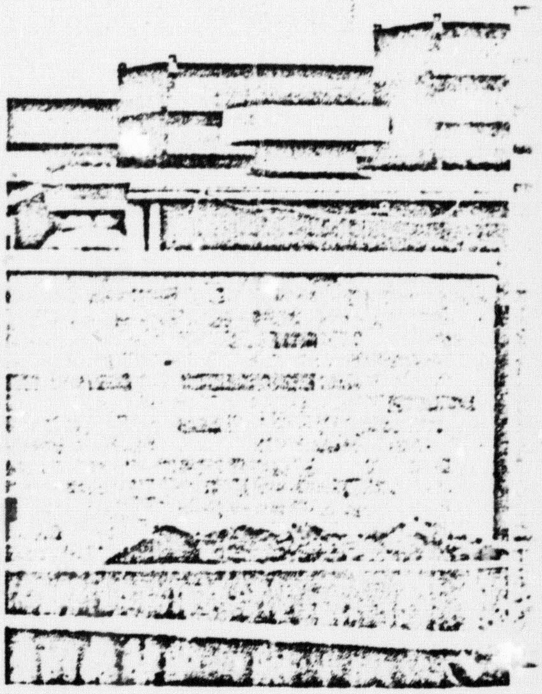
Indian Point Nuclear Unit No. 3, 965,000 kw initially.

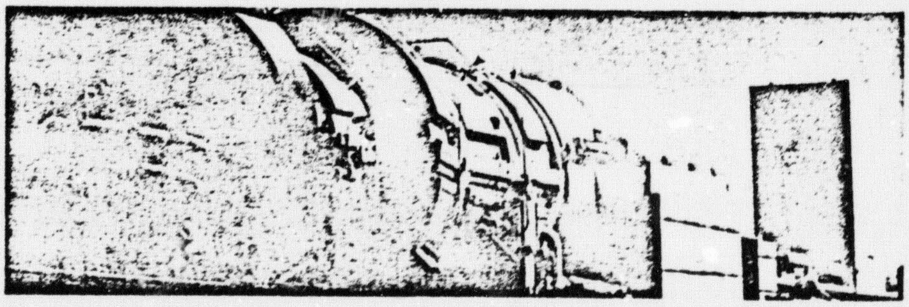
1974—Astoria expansion, oil-fired, 800,000 kw.

1975—Bowline oil-fired unit No. 2, 400,000 kw (Con Edison's share).

345 kv Long Island tie.







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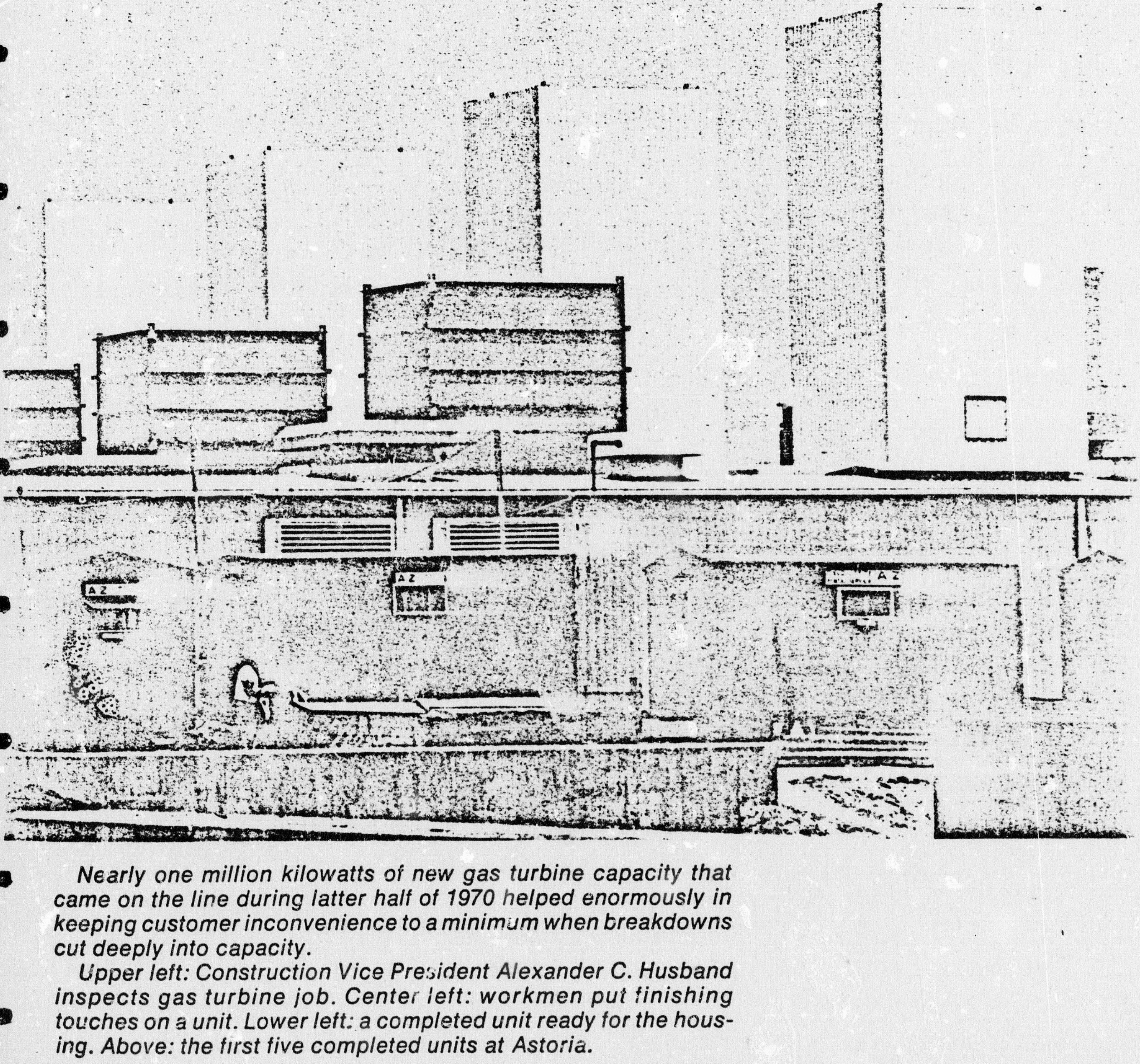
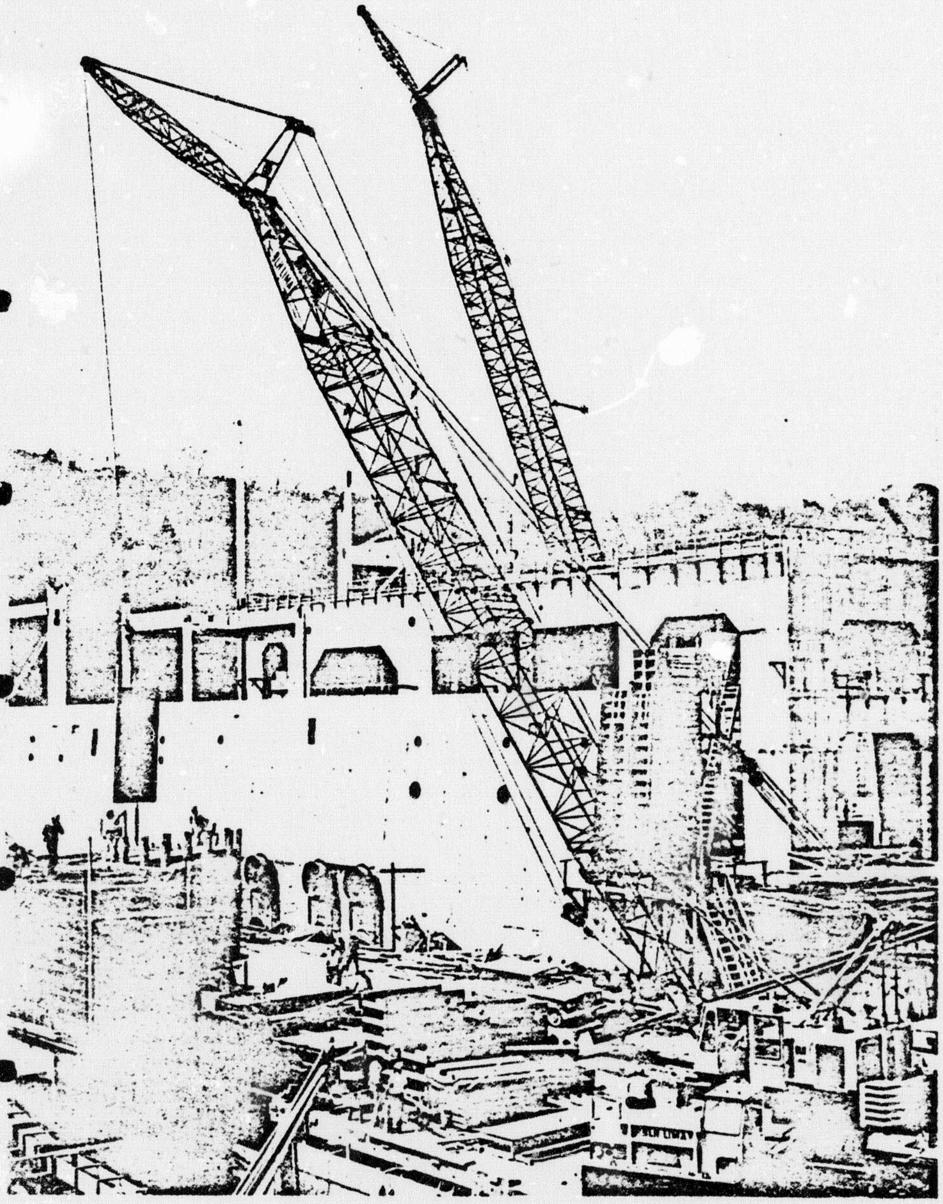


Nearly one million kilowatts of new gas turbine capacity that came on the line during latter half of 1970 helped enormously in keeping customer inconvenience to a minimum when breakdowns cut deeply into capacity.

Upper left: Construction Vice President Alexander C. Husband inspects gas turbine job. Center left: workmen put finishing touches on a unit. Lower left: a completed unit ready for the housing. Above: the first five completed units at Astoria.

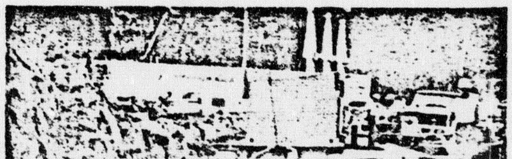


Beyond 1975, our electric construction program contemplates the construction of a 1.1-million-kw nuclear plant at Verplanck immediately south of Indian Point, capable of expansion to 2.2 million kw, for which a construction license was requested in 1969. It also contemplates nuclear generating stations on David's Island in Long Island Sound.

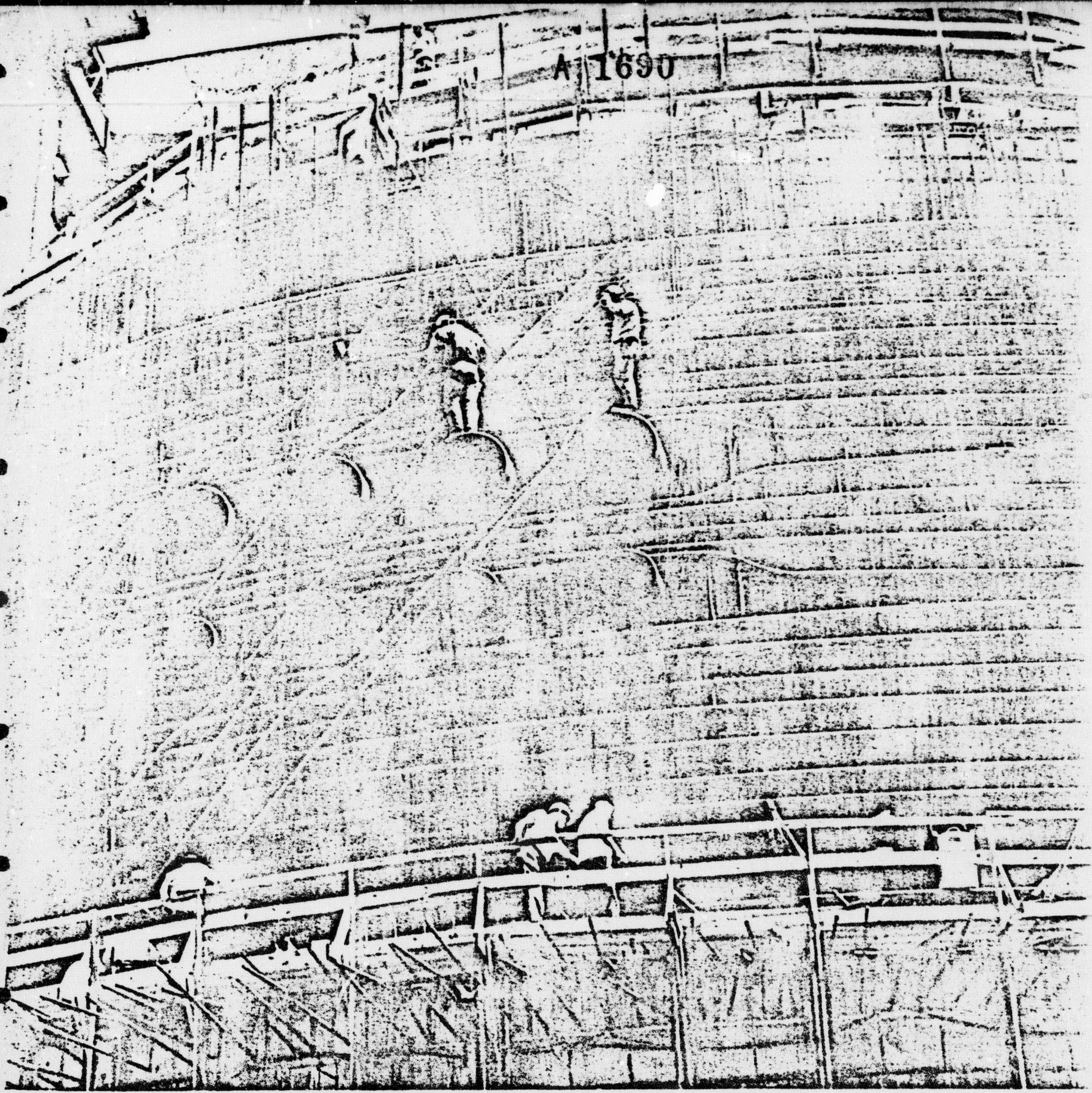
The Cornwall Pumped Storage Project, licensed again by the Federal Power Commission in 1970, and now before the United States Court of Appeals for the Second Circuit, will be reinserted in the construction schedule at such time as the courts affirm the license. It is now eight years since the Company first sought approval to construct this 2-million-kw project. If we had been allowed to complete the project on schedule Con Edison would have had no power shortages in 1969 and 1970. Thus far the Company's investment in the Cornwall Project is $18.7 million.

Our current five-year steam construction program includes new boiler capacity additions and modifications which, taking into account some retirements, will increase our present steam system capacity of 13½ million pounds per hour to 16½ million by 1975.

The principal gas system capital addition in the next five years will be a Liquefied Natural Gas storage plant at Astoria, scheduled for operation by the winter of 1973-74. During these five years we will also upgrade the gas distribution system, including replacement and elimination of old cast iron mains as required.



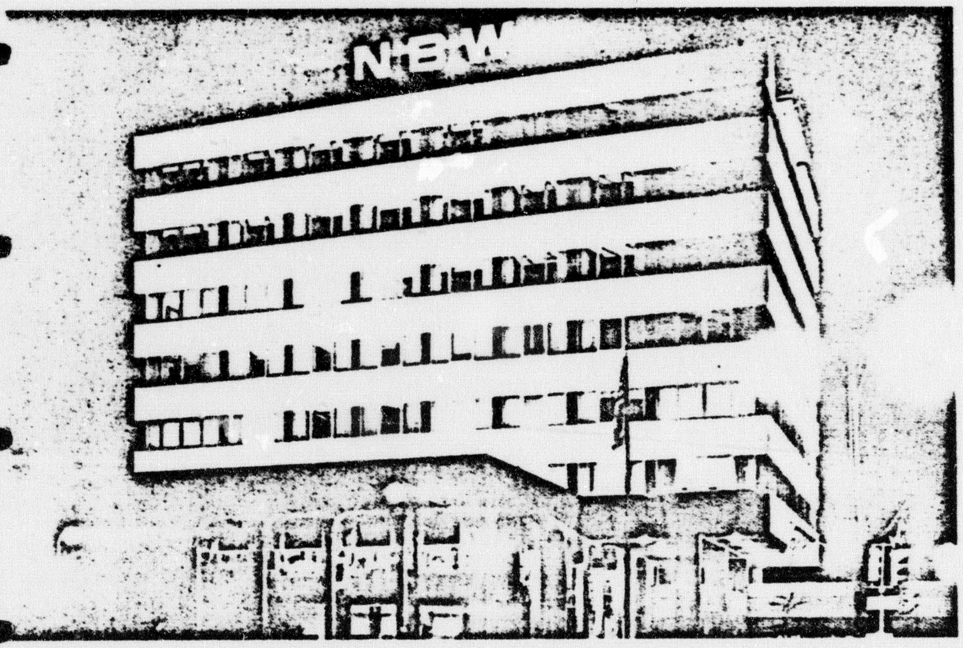
A 1690

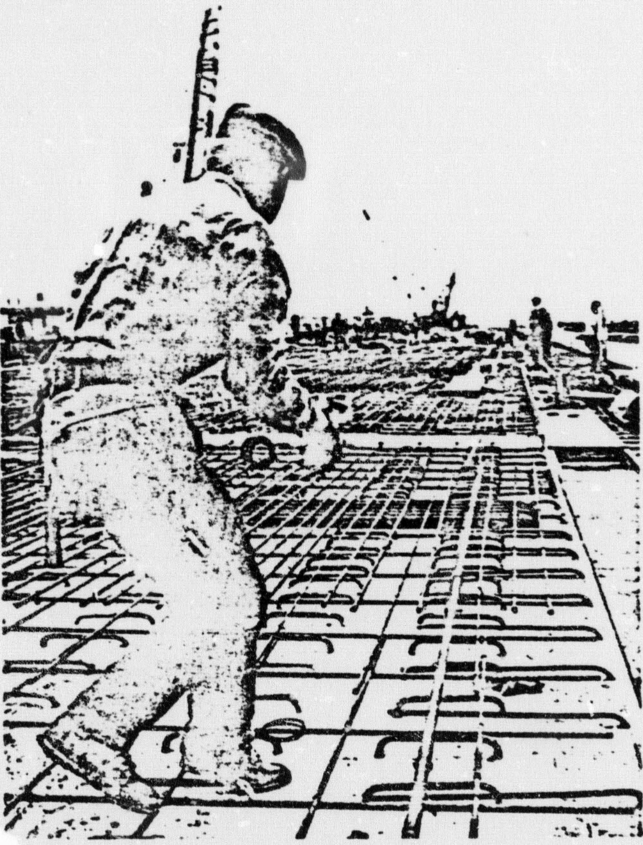


Both inside and outside our service territory, important progress was made during 1970 on our construction program which for next five years will amount to $2.5 billion.

Upper left: cranes tower over foundations for Roseton plant. Lower left: Bowline plant starts to take shape. Left: underground cable installation inches through rough terrain. Above: workmen install reinforcing rod for concrete exterior of steel-lined containment vessel at Indian Point No. 3.

New Customer Construction





The photographs on these and the next two pages illustrate why Con Edison loads will grow without promotional effort on our part. New office buildings, new apartments and redevelopment projects continue to rise in our service territory.

Manhattan

Seventeen major new office buildings were completed in Manhattan during 1970 with 8 million square feet of rentable space. Two new apartments with 1,670 units started in 1970 will be all electric.

Already announced for the first half of this decade in Manhattan, alone, are 63 more new office buildings with more than 52 million square feet. This does not include the World Trade Center with its 9 million square feet, of which the first building, the North Tower, will be completed in 1972. Nor does it include a host of new apartment projects, whose starting dates are uncertain, totalling at least 50,000 dwelling units.

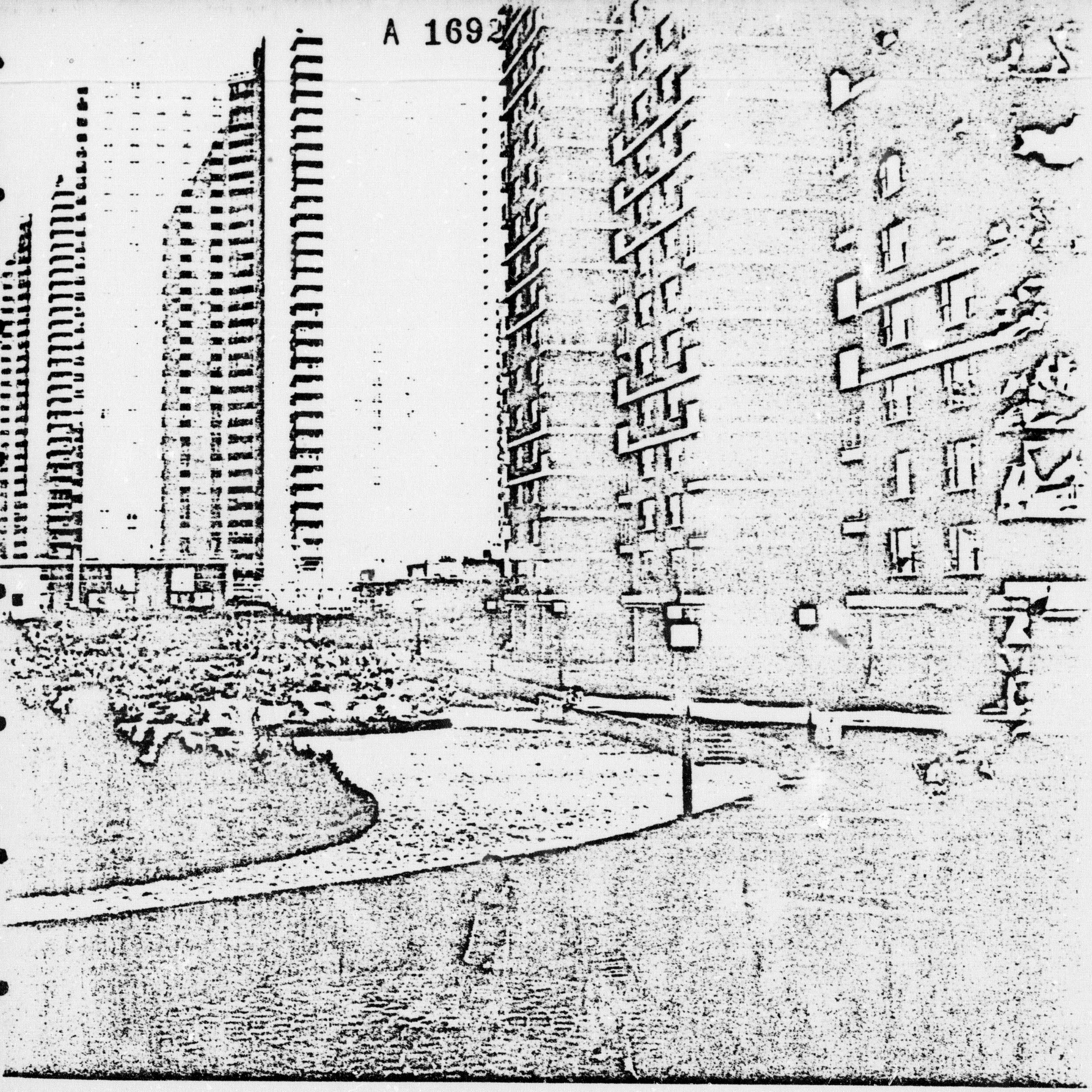
Scheduled to commence in 1971 is redevelopment of the 147-acre Welfare Island in the East River, with apartments and schools and related facilities for 5,000 families.

Typically, new office buildings in Manhattan are heated and cooled with steam. Nevertheless the electric requirements of the 17 major new office buildings completed in Manhattan last year are equivalent to those of a city of 50,000.

Queens

In Queens, where 4 million square feet of non-residential construction took place in 1970, Western Electric Co. is the first tenant to start construction in the new College Point Industrial Park that by 1975 should have 5 million square feet. In the next five years the Jamaica Redevelopment Program in Queens will add 3½ million square feet. *The Daily News* is building a 900,000-square-foot plant in Queens to consolidate its various printing operations into one plant. New residential construction will continue strong.

A 1692



Throughout New York City and Westchester new construction assures continued load growth without promotional effort by us.

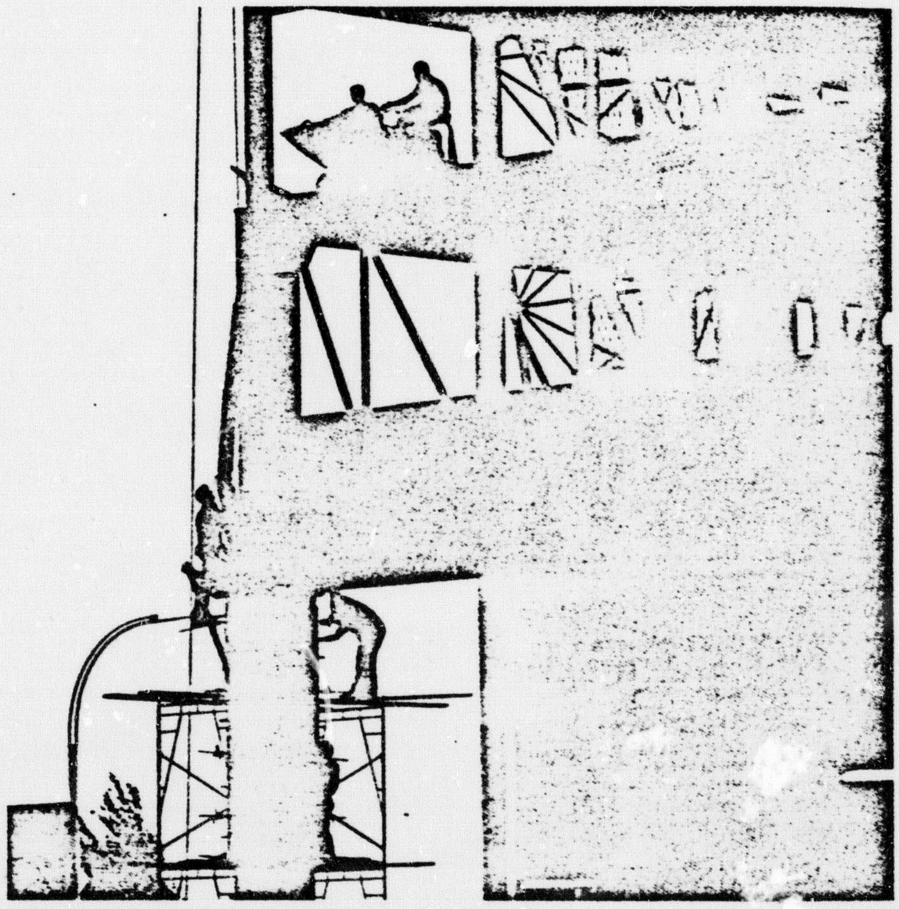
Upper left: new bank building in Westchester where 1.5 million square feet of non-residential space was added in 1970. Lower left: foundations go in for new marine terminal on Staten Island, where a new city of 420,000 is in study stage. Above: new Co-op City apartments tower over The Bronx; project will house 15,500 families ultimately.

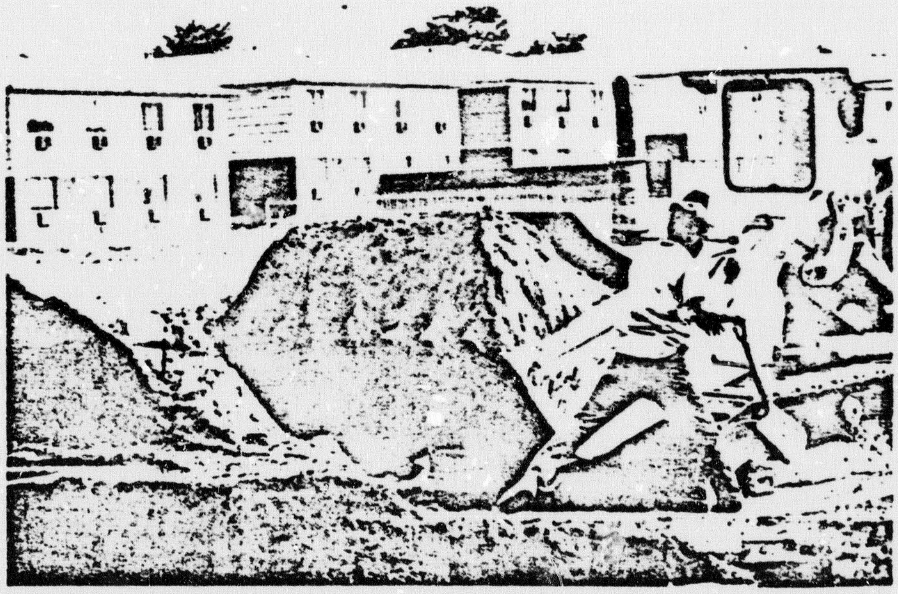
The Bronx
In the Bronx the Hunt's Point Market, the world's largest food trading center, is nearing completion, as is the 15,500-family Co-op City apartment project. Planned is the Zerega Industrial Park for both heavy and light industry. Construction started during 1970 on an 896-unit all electric dormitory for Manhattan College.

Brooklyn
[illegible] 15-year downtown redevelopment project is planned with 10 million square feet of office space, one million feet of retail space and 5,000 new apartment units. Con Edison's new Brooklyn headquarters —a new building scheduled for occupancy in the latter half of 1972 on the site of the old Fox Theater—is the initial structure in this redevelopment project.

Westchester
Westchester continues to grow with new residential, commercial and industrial construction. Some 1.5 million square feet of non-residential space was added this year with 3 million additional feet presently scheduled over the next five years, as well as 22,000 new dwelling units. Some 40 percent of these new dwelling units will have electric heat.

Staten Island
Residential construction in the next five years will include 15,000 one and two family homes and 10,000 garden type apartment units. A 9,000 acre tract in South Richmond ultimately planned for development into a new city of 420,000 people is in the study stage under auspices of the City Planning Commission.





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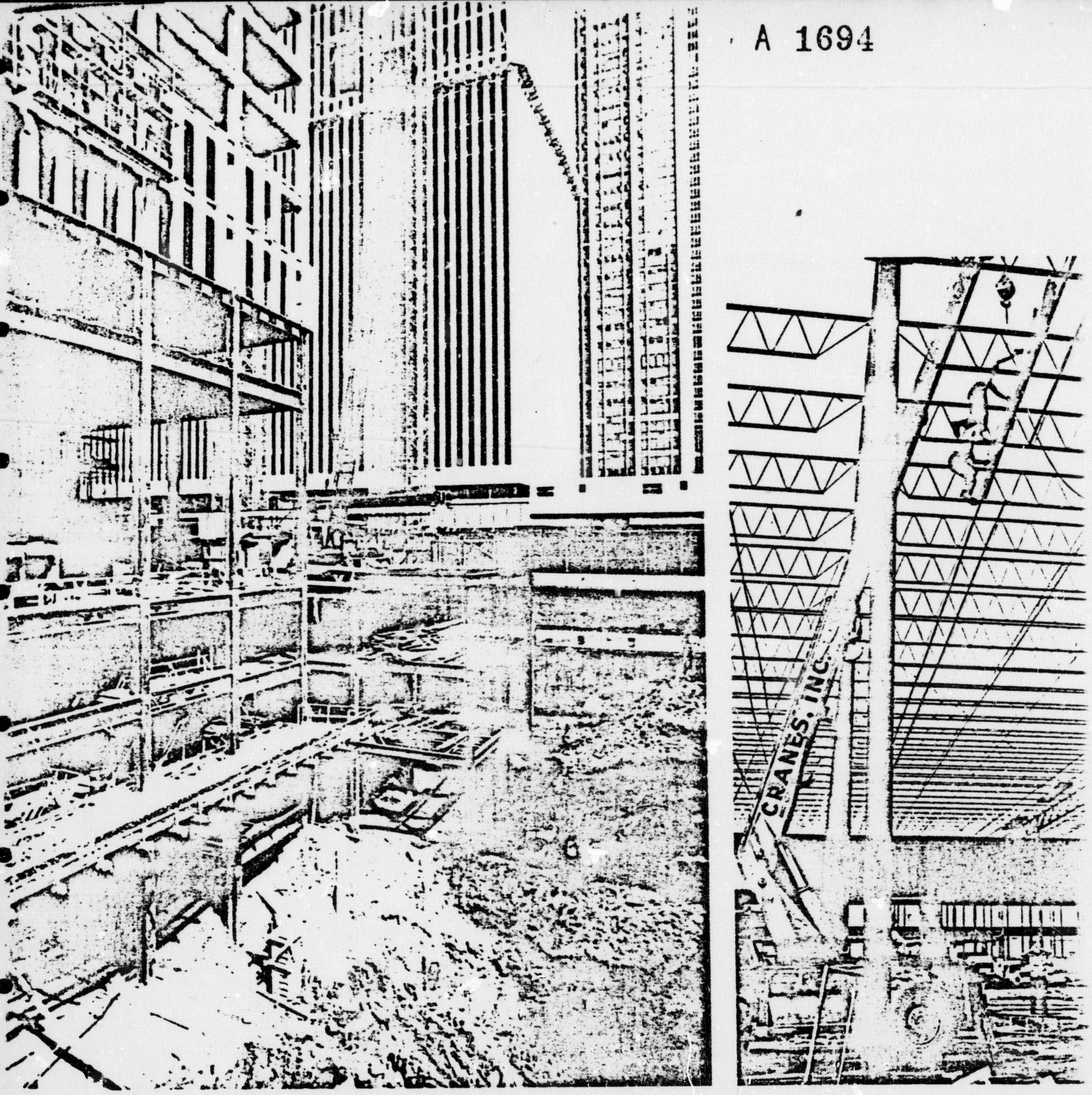


And still more new construction! Upper left: workmen and framework of new Statler Hilton Hotel near Kennedy Airport are silhouetted. Lower left: housing development rises in Queens where non-residential construction also boomed.

Above left: new McGraw-Hill Building starts climb toward sky in Manhattan where 17 new major office buildings were completed in 1970. Upper right: steelwork laces sky for new industrial building in Flatlands Industrial Park in Brooklyn.

A 1695

HOW A GAS TURBINE WORKS

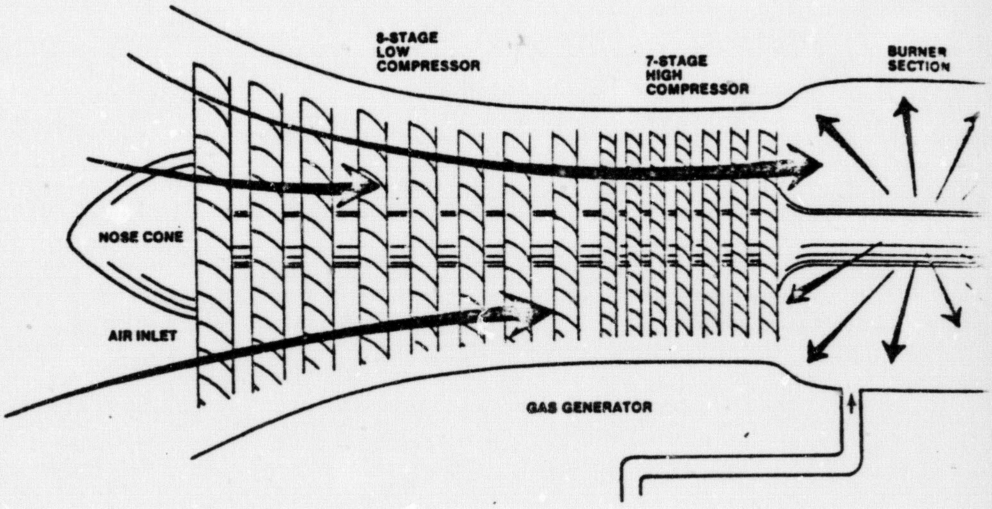
A gas turbine produces electricity in much the same manner as a conventional power plant, except that it uses hot gases instead of steam to turn the turbine blades.

In a conventional thermal power plant, coal, oil or natural gas is burned in a furnace to heat water in a boiler to make steam. The steam is then directed against turbine blades which drive a generator; the spent steam is condensed to water and returned to the boiler for use again. The generator rotates a magnetic field in a copper armature to produce electric current.

In a gas turbine, air is taken in at one end of the engine, compressed and passed through a combustion section where it is heated by mixing it with burning fuel. The mixture of fuel and air produces hot gases that are thrust out the other end, passing through turbine blades which spin the generator. The spent gases are then vented directly to the atmosphere through exhaust stacks.

It is the hot gases produced in the engine that give these units the name "gas turbines". The name has nothing to do with the type of fuel used. Sometimes gas turbines are fueled by natural gas, but more often a distillate fuel similar to diesel oil or kerosene is used.

GAS TURBINE

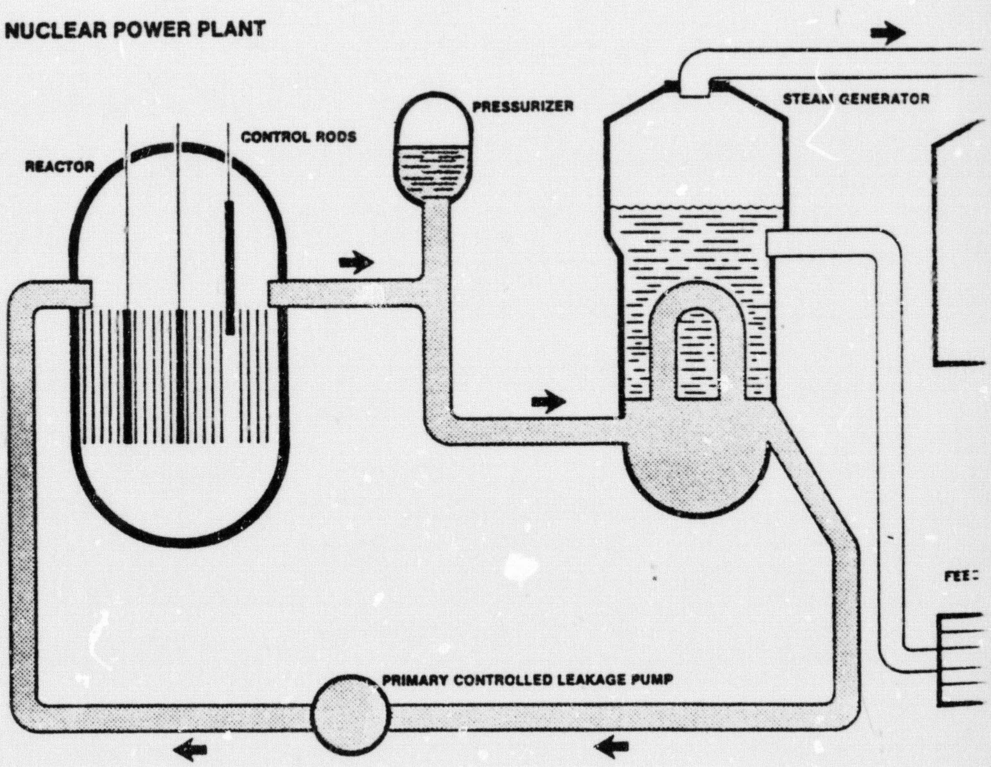

8-STAGE LOW COMPRESSOR
7-STAGE HIGH COMPRESSOR
BURNER SECTION
NOSE CONE
AIR INLET
GAS GENERATOR

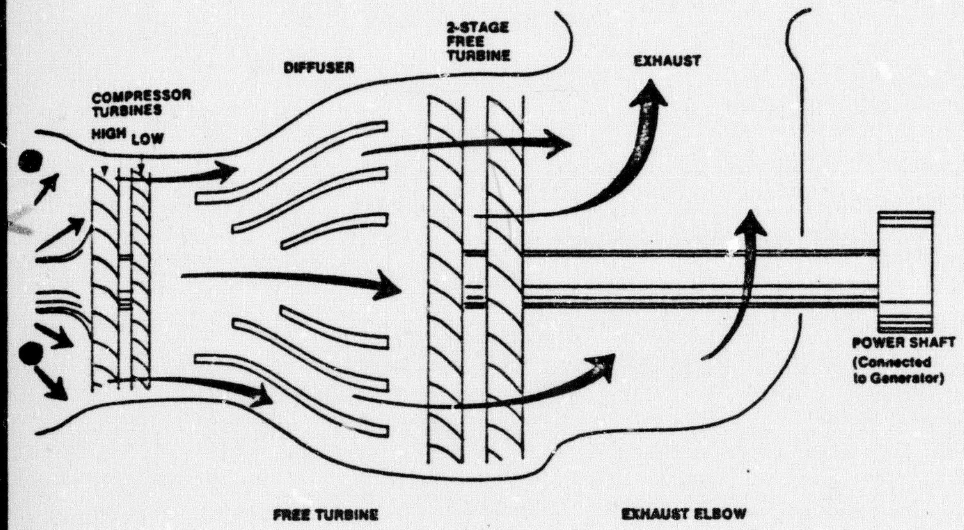
HOW A NUCLEAR PLANT WORKS

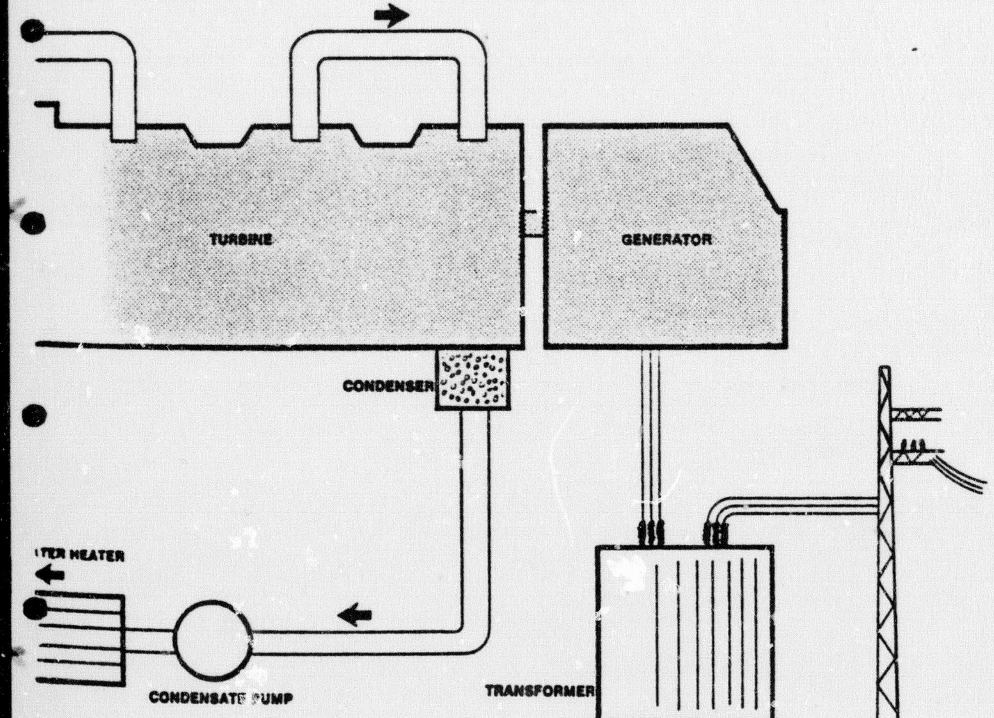
A nuclear power plant, too, works much like a conventional plant, the main difference being the fuel.

Nuclear fission rather than combustion of coal, oil or gas produces the heat to make the steam that turns the turbines.

NUCLEAR POWER PLANT


PRESSURIZER
STEAM GENERATOR
CONTROL RODS
REACTOR
FEE
PRIMARY CONTROLLED LEAKAGE PUMP





The "furnace" is called the reactor vessel. It holds a fuel core consisting of several thousand tubes containing the fissionable material, usually uranium. Neutrons from uranium atoms are set in motion, splitting other atoms, which in turn give off neutrons that split millions and billions of others. The energy thus released creates tremendous heat.

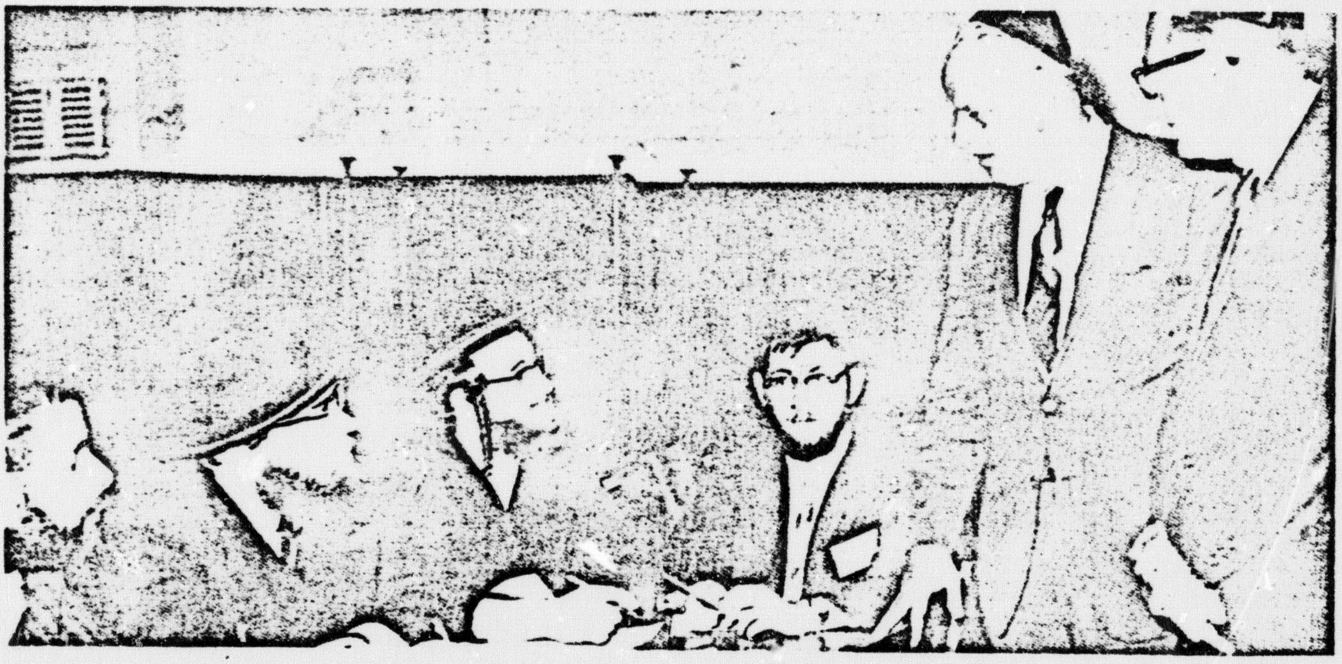
Control rods are inserted in the fuel core. They contain material that absorbs neutrons. By moving the rods in and out of the fuel core, the rate of fission and thus the amount of heat can be controlled. The control rods are used to shut down the plant.

Nuclear power is safe. A nuclear plant cannot explode like an atom bomb, because the arrangements and characteristics of the key ingredients are different. Several layers of elaborate containment guard against escape of harmful amounts of radioactivity. A tiny amount of radioactivity is released to the atmosphere in normal operations. But this amounts to only a small fraction of the natural radioactivity in the surrounding environment and is well within safety standards set by the AEC.

Spent fuel is radioactive and must be handled carefully. It is shipped in special containers to reprocessing plants where up to 98 percent of the fuel is recovered for reuse. The small residue of fission product is placed in special vessels and stored under Government supervision—in perpetuity, for all practical purposes.

Conventional and nuclear plants both require large amounts of cooling water to dissipate waste heat. We return cooling water to its source about 15 degrees warmer than it is taken in. At the present state of the art, the cooling requirements for nuclear plants are about half again as much per kilowatt as for the most modern conventional fossil plant. This leads to objections to nuclear power on grounds of "thermal pollution." But the discharges of cooling water from nuclear plants, like those from conventional plants, are controlled within standards set by State and Federal governments. Since there is no combustion, there is no air pollution from combustion of fuel.

Con Edison clean energy

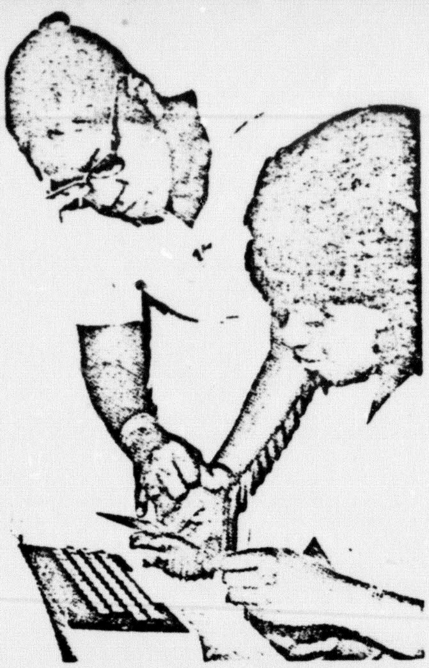


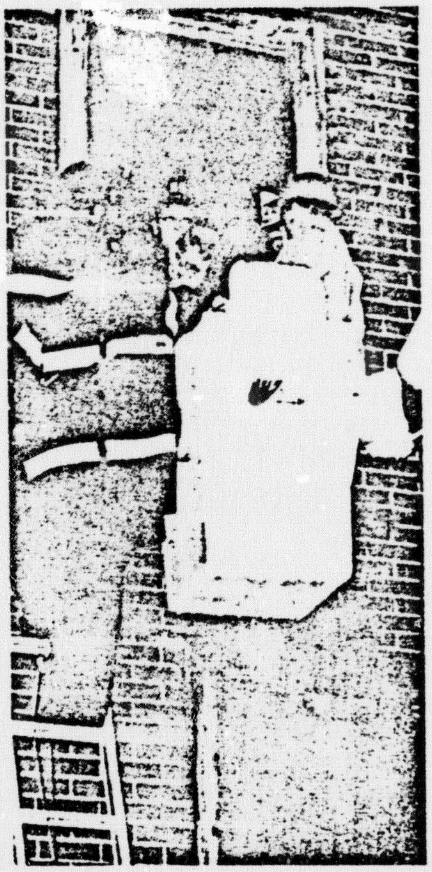
Helping Hands

In ways ranging from rescuing a trapped fireman to counseling minority businessmen, the men and women of Con Edison extend a helping hand whenever possible.

Top left: children to be tested for lead poisoning wait with their mothers in front of a Con Edison van loaned to the City for use as a mobile laboratory. Lower left: Vice President Robert J. Marcus, second from right, counsels Hasidic Jews during orientation session in our program to provide jobs and special hours for those

A 1698



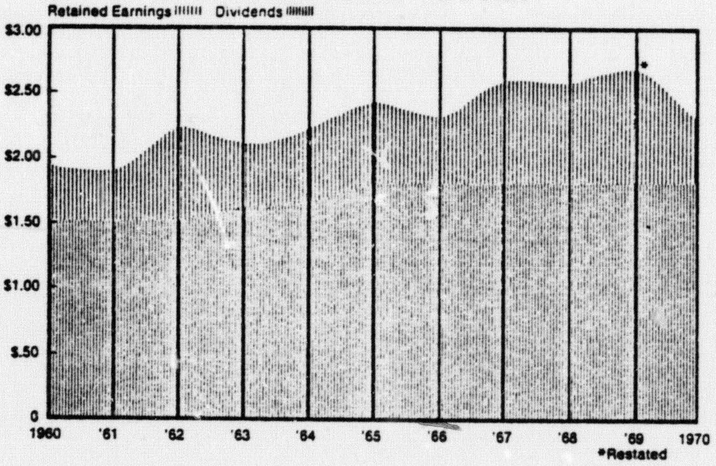


whose religious obligations do not permit them to work regular hours. Above: Roy Wilson, right, staff engineer, goes over plans for house remodeling job with a black entrepreneur; some 110 Con Edison employees have volunteered for minority business counseling. Upper right: supervisor checks work of one of 36 welfare mothers whom we employ half-days as key-punch operators. Lower right: an injured fireman is aided into the bucket of a Con Edison truck called to the rescue.

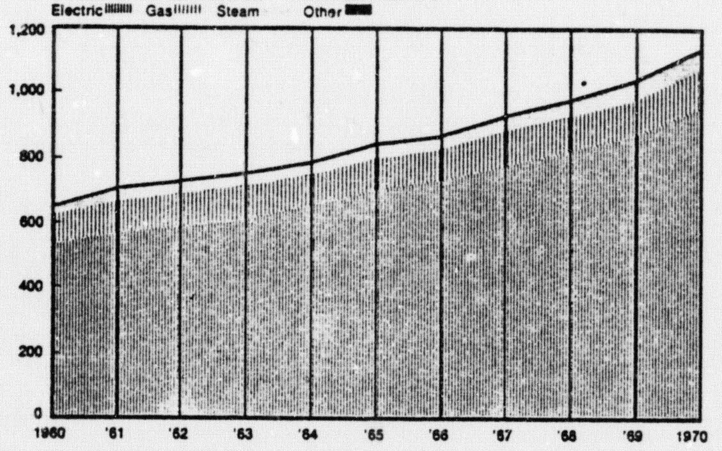
FINANCIAL REVIEW

A 1699

EARNINGS AND DIVIDENDS PER SHARE $Per Share

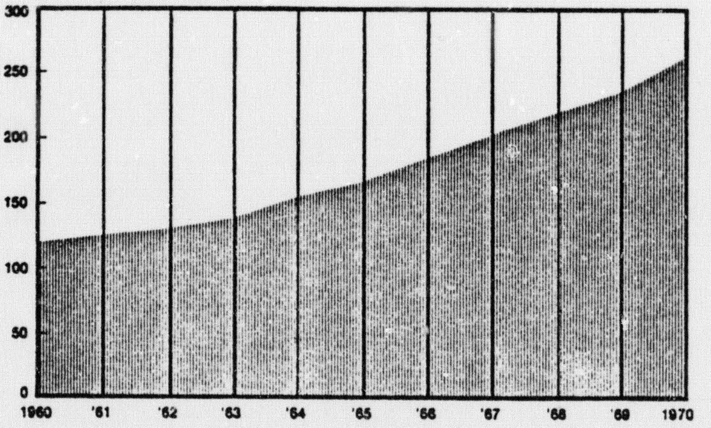


OPERATING REVENUES Millions of Dollars



TOTAL TAXES Millions of Dollars

(Other Than Federal Income)



Net income for Common Stock was $94.2 million, or $2.30 per share for 1970, as compared with $101.0 million, or $2.68 per share in 1969 on 3.1 million fewer shares. The 1969 earnings have been restated upwards from the $2.47 reported last year to $2.68 to reflect the tax reduction resulting from adoption of minimum "guideline lives" for tax depreciation as more fully discussed in Note B to the Financial Statements.

Dividends

The quarterly dividend rate remained at $.45 per Common Share. Subject to review by the Internal Revenue Service, these dividends, together with those on Preference and Preferred Stock are for 1970 100 percent non-taxable as ordinary income, being considered for tax purposes as return of capital.

Increased Costs

The decline in net income was caused by significant increases in wages, property taxes, fuel and interest on borrowed funds; increases in maintenance expenditures, and increased power purchases because of plant outages. While increases in fuel costs are recoverable from customers, the Company is not permitted to bill customers until two months after the increases are incurred.

Although the rapid escalation of costs made it impossible to absorb them by improvements in productivity, the Company has made a number of important improvements in efficiency, and others will be instituted. For example, a new automated Customer Service System is scheduled to become operational in 1971. Crew sizes, already reduced from former years, will be further reduced for greater efficiency and more flexibility. Divisionalization, which has brought economies by breaking our work load into smaller, more manageable units, will give us greater cost control across the board.

New Rates

Cost increases were offset only partially by increases in electric rates which were in effect only long enough to add $27.3 million to 1970 revenues. The new electric rates will be in effect throughout all of 1971 and it is estimated will increase revenues by about $84 million over 1970 based on the actual 1970 volume of sales. An increase in steam rates of $7.5 million annually was approved by the Public Service Commission in December effective January 4, 1971. We also have pending an application for increases in gas rates to add $12.4 million per year to our gas revenues.

Financing

The Company's construction program during 1970 required expenditures of $429.3 million, including $28.8 million for leased gas turbines. To finance this program, and to repay bank loans outstanding at the end of 1969, we effected several major financings during the year.

We issued First Mortgage Bonds of $125 million in January (Series HH) at 8.90 percent and $150 million in September (Series II) at 9.375 percent. These high interest rates were consistent with the historically high rates prevailing nationally. In May we offered to Common stockholders 3,263,751 shares on a one for 12 basis at $22.50 per share ($73.4 million). In December, $50 million of 8.30 percent Preferred Stock (Series G) was issued.

To tap new sources of capital, we negotiated the first utility leases of generating equipment—21 gas turbine units of approximately $40 million value. At printing deadline we were negotiating a lease for another 32 gas turbine units, barge-mounted, 636,000 kw, costing approximately $50 million. The leases run for 25 years, some with options to extend.

In February, 1971, we offered to Common stockholders on a one for 12 basis approximately 3,536,000 additional Common shares at $24.70.

Earnings must be at levels adequate to enable the Company to finance its construction program, and we intend to file for necessary rate increases.

Source and Application of Funds—(000 omitted)

Source of Funds:	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961
Internal Sources:										
Net Income	$128,427	$135,089	$128,519	$122,917	$110,307	$111,777	$100,957	$ 94,017	$ 90,636	$ 76,352
Depreciation	100,729	95,915	92,459	89,792	88,259	83,561	76,835	75,033	68,832	67,771
Sales of Property	—	1,504	9,159	4,060	10,057	5,104	770	102	61	1,028
Other Assets and Liabilities—Net	—	—	12,974	6,054	—	4,719	539	5,181	—	17,658
	229,156	232,508	243,111	222,823	208,623	205,161	179,101	174,333	159,529	162,809
Available from Financing:										
Bonds—Net	275,000	82,400	63,748	77,734	46,785	100,000	125,000	47,173	160,000	115,697
Preferred Stock	50,000	—	102,543	41,420	39,180	75,000	59,871	—	94,645	84,000
Common Stock	73,434	46,618	—	—	—	—	—	107,449	—	—
Short-Term Loans—Net	(67,500)	67,500	(37,000)	22,000	5,000	(47,000)	52,000	(15,000)	—	8,000
	330,934	196,518	129,291	141,154	90,965	128,000	236,871	139,622	254,645	207,697
Total Source of Funds	560,090	429,026	372,402	363,977	299,588	333,161	415,972	313,955	414,174	370,506
Application of Funds:										
Construction Expenditures	400,555	304,953	246,257	255,890	197,764	235,493	333,792	236,287	328,578	303,565
Dividends	108,021	102,065	100,461	94,050	91,427	88,987	79,274	76,088	68,318	63,759
Increase in Accounts Receivable	42,824	13,046	25,684	14,037	7,231	8,681	2,906	1,580	3,134	3,182
Other Assets and Liabilities—Net	8,690	8,962	—	—	3,166	—	—	—	14,144	—
Total Funds Applied	$560,090	$429,026	$372,402	$363,977	$299,588	$333,161	$415,972	$313,955	$414,174	$370,506

Consolidated Edison Company of New York, Inc. A 1701

Income Statement

	1970	1969*
Operating revenues		
Electric	$ 951,962,810	$ 862,122,694
Gas	117,779,012	110,065,238
Steam	55,780,971	52,037,739
Other	2,956,818	2,471,800
	1,128,479,611	1,026,697,471
Operating revenue deductions		
Operations	484,132,646	401,923,796
Maintenance	104,622,621	90,396,101
Depreciation (Note A)	100,728,686	95,915,222
Taxes, other than Federal income	246,791,546	226,465,692
Federal income tax (Notes B and C)	(17,500,000)	7,200,000
Federal income tax deferred in prior years for accelerated amortization	(900,000)	(900,000)
	917,875,499	821,000,811
Operating income	210,604,112	205,696,660
Interest charged to construction	23,453,850	14,682,617
Other income	551,852	2,512,529
Total	234,609,814	222,891,806
Interest charges and income deductions		
Interest on long term debt and other interest	105,523,003	87,079,011
Miscellaneous deductions	659,559	723,981
	106,182,562	87,802,992
Net income (Note B)	128,427,252	135,088,814
Preferred stock dividend requirements	34,240,704	34,099,760
Net income for common stock	$ 94,186,548	$ 100,989,054
Net income per common share, based on weighted average number of shares outstanding during each year (40,864,710 and 37,733, 913 shares)	$2.30	$2.68
Net income per common share assuming full conversion of outstanding preference stock	$2.29	$2.64

*Restated, including effect of minimum "guideline lives" tax depreciation (See Note B)

Retained Earnings Statement

	1970	1969
Balance, January 1		
As previously reported	$ 426,057,782	$ 400,934,045
Reduction of Federal income tax for year 1969 (Note B)	7,900,000	—
As restated	433,957,782	400,934,045
Net income for the year	128,427,252	135,088,814
	562,385,034	536,022,859
Deduct:		
Dividends on capital stock:		
Cumulative preferred		
$5 per share	9,576,595	9,576,595
Series A, 5¾ %	3,450,000	3,450,000
Series B, 5¼ %	3,937,500	3,937,500
Series C, 4.65%	2,790,004	2,790,002
Series D, 4.65%	3,487,502	3,487,502
Series E, 5¾ %	2,875,004	2,875,004
Series F, 6.20%	2,480,000	2,480,000
Series G, 8.30%	507,200	—
Cumulative preference, Convertible Series B, 6%	5,481,453	5,500,937
Common, $1.80 per share	73,436,126	67,967,537
	108,021,384	102,065,077
Balance, December 31 (Note F)	$ 454,363,650	$ 433,957,782

Consolidated Edison Company of New York, Inc.

A 1702

Balance Sheet

	Dec. 31, 1970	Dec. 31, 1969*
Assets		
Utility plant, at original cost		
Electric	$4,537,810,369	$4,190,630,508
Gas	278,498,808	263,949,908
Steam	120,827,349	115,617,618
General	138,672,950	131,540,872
Total	5,075,809,476	4,701,738,906
Less—Accumulated depreciation	985,015,991	908,439,530
Net utility plant	4,090,793,485	3,793,299,376
Nuclear fuel assemblies—net	16,004,327	11,915,208
	4,106,797,812	3,805,214,584
Investments, special deposits and other physical property, at cost or less	14,742,164	10,051,584
Current assets		
Cash	16,409,215	19,094,453
Accounts receivable, less allowance of $3,312,000 and $2,308,000 for uncollectible accounts	188,575,888	145,751,829
Federal income tax recoverable due to loss carryback (Note C)	17,500,000	—
Materials and supplies, including construction materials, at average cost	68,058,793	62,248,144
Prepayments and other current assets	8,321,792	6,998,632
	298,865,688	234,093,058
Deferred charges		
Nuclear research and development costs being amortized through 1977	4,846,837	5,564,888
Net unrecovered costs of steam plant retirement to be amortized through 1975	1,857,649	—
Unamortized debt expense	11,724,087	7,352,969
Other deferred charges	10,084,071	6,340,605
	28,512,644	19,258,462
	$4,448,918,308	$4,068,617,688

Liabilities		
Capitalization		
Long term debt (Note G)	$2,256,639,500	$1,981,639,500
Capital stock and retained earnings (Note F)		
Capital stock		
Preferred stock	676,281,210	626,537,210
Common stock	872,185,197	798,494,799
Capital stock expense	(17,423,185)	(14,361,621)
Retained earnings	454,363,650	433,957,782
	1,985,406,872	1,844,628,170
Total capitalization	4,242,046,372	3,826,267,670
Federal income tax deferred in prior years for accelerated amortization	12,803,627	13,703,627
Current liabilities		
Notes payable	—	67,500,000
Accounts payable	67,248,737	59,141,348
Accrued taxes	16,304,426	4,086,221
Accrued interest, wages and other current liabilities	55,878,677	45,276,826
Customers' deposits	31,689,540	30,890,590
Dividends payable	9,025,568	8,522,208
	180,146,948	215,417,193
Deferred credits		
Unamortized debt premium	3,008,218	3,230,982
Other deferred credits	8,043,313	7,117,858
	11,051,531	10,348,840
Reserve for injuries and damages	2,869,830	2,880,358
Commitments and contingent liabilities (Note E)		
	$4,448,918,308	$4,068,617,688

*Restated for nuclear fuel assemblies and effect of minimum "guideline lives" tax depreciation (See Note B)

A 1703

Consolidated Edison Company of New York, Inc.

Notes to Financial Statements

Note A—Depreciation:

Provisions for depreciation of utility plant are made in accordance with annual rates for depreciation consistent with the average service lives and net salvage approved by the New York Public Service Commission. For the years 1970 and 1969 such provisions were equivalent to approximately 2.3 per cent of related depreciable utility plant. Depreciation charges included a provision for amortization of net unrecoverable costs of extraordinary retirements of certain gas plant facilities, principally manufacturing, of $1,094,000 for the year 1969.

Note B—Accounting changes:

As a result of the New York Public Service Commission's decision in 1970 approving increases in the Company's electric rates, the Company adopted minimum "guideline lives" depreciation for the purpose of calculating Federal income tax. Federal income tax for the year 1970 reflects the effect of adoption of such "guideline lives" depreciation which resulted in an increase in net income of $10,100,000, or $.25 per share. In filing its 1969 Federal income tax return, the Company utilized minimum "guideline lives" tax depreciation and received a refund of estimated tax previously paid. The amount of this refund attributable to the use of such tax depreciation, less the effect upon investment tax credit, amounted to $7,900,000, or $.21 per share. Net income for 1969 as previously reported has been restated to reflect this reduction in Federal income tax. See Note C for information on claims for refund of Federal income taxes for the years 1962 through 1968 based on utilization of such "guideline lives" tax depreciation.

Pursuant to permission by the New York Public Service Commission, the Company changed its billing procedure in 1970 for residential and small commercial customers of electric and gas services from bi-monthly to monthly billing. The effect of this change was to increase operating revenues for 1970 by $16,300,000 and net income for the year by approximately $7,900,000, or $.19 per share.

Note C—Federal income tax:

In the computation of Federal income tax for the year 1970, tax deductions including minimum "guideline lives" tax depreciation resulted in a "net operating loss" for income tax purposes which has been carried back and applied against taxable income for the year 1967. The tax reduction credited to operations in 1970 amounted to $17,500,000.

The Company is also claiming additional tax depreciation for all years beginning with 1962, the year in which the guideline depreciation procedure was adopted by the Internal Revenue Service. It is estimated that for the years 1962 to 1970, inclusive, the tax reductions realizable by utilizing "guideline lives" depreciation and the resultant effects thereof on investment tax credits will aggregate $65,200,000, of which $10,100,000 is applicable to the year 1970, $7,900,000 to the year 1969 and $47,200,000, exclusive of interest, to the years 1962 to 1968 inclusive.

All claims for tax reductions resulting from "guideline lives" tax depreciation are subject to the review and approval of the Internal Revenue Service. If all or substantially all of such claims are allowed, it is presently estimated that the Company will also have a cumulative carry-forward investment tax credit available for use after 1970 of approximately $22,000,000. The amounts of investment tax credit ultimately to be allowed will depend upon the resolution of certain pending issues and upon the application of the limitations and restrictions contained in the investment tax credit provisions of the Internal Revenue Code, as amended by the Tax Reform Act of 1969.

Depreciation deductions for Federal income tax purposes, including additional depreciation due to minimum "guideline lives", were estimated at $195,800,000 for 1970 and $186,700,000 for 1969 and include deductions for rapid depreciation and other deductions for depreciation as permitted under the Internal Revenue Code. Investment tax credits on property additions reflected in net income amounted to $2,430,000 in 1970 and $2,800,000 in 1969 as restated.

Tax reductions resulting from rapid depreciation deductions and investment tax credits, other than tax benefits under accelerated amortization necessity certificates deferred in prior years, are accounted for as current reductions in Federal income tax provisions. Similarly, no provision for deferred Federal income taxes has been made for other differences (principally interest, pensions and taxes charged to construction) between income for financial statement and income for Federal income tax purposes. This method of accounting for Federal income taxes is in accordance with the general policy adopted by the New York Public Service Commission for accounting and rate-making purposes.

Note D—Pension plans:

The pension plan for retirement for age was amended in 1969 to provide for Company contributions determined on an annual basis as a percentage of straight time payroll, but not less than the minimum amount necessary to maintain the continued qualified status of the plan under the applicable requirements of the Internal Revenue Code.

The Company's contributions to the pension plan trust for 1970 and 1969, based upon a percentage of straight time payroll which provides for current costs and amortization of unfunded past service credits over 40 years from December 31, 1966, amounted to $24,808,185 and $23,053,511, respectively. These amounts represent benefits paid in each year to retired employees and the addition of $2,547,960 for the year 1970 and $4,111,373 for the year 1969 to the pension plan trust.

The pension plan trust assets, consisting principally of investments stated at estimated market value, amounted to $151,000,000 at December 31, 1970 and $147,000,000 at December 31, 1969, which amounts are in excess of cost.

The employees security plan is an unfunded plan under which the Company makes payments to employees retired for disability or reasons other than age and in certain cases to widows of former employees. The amounts paid totaled $7,822,942 and $7,081,805 for the years 1970 and 1969, respectively.

The Company reserves the right to amend or terminate the pension plan for retirement for age and the employees security plan as provided therein.

Costs of the plans as disbursed are reflected in the financial statements in accordance with the policy of the New York Public Service Commission for accounting and rate-making purposes.

In accordance with the provisions of Opinion No. 8 of the Accounting Principles Board, the actuarial value of benefits accruing to participants under the amended pension plan for retirement for age who have attained the minimum age and service requirements as of December 31, 1969, the latest date available, exceeded the market value of the assets of the pension fund as of that date by approximately $186,000,000. The actuarial value of benefits accruing to current recipients under the unfunded security plan as of the same date was approximately $53,000,000.

Note E—Commitments and contingent liabilities:

In June 1970, the Company entered into a twenty-five year lease agreement for certain gas turbine generating units costing approximately $20,000,000, of which 80% ($16,000,000) will be paid by the lessor from the proceeds of 9¼% notes guaranteed by the Company. The annual rentals under this agreement, which began January 1, 1971, will amount to $1,600,000 for the first ten years and $2,130,000 for the remaining fifteen years. The Company has also entered into an interim agreement for the lease of additional gas turbines costing approximately $20,000,000 of which 80% ($16,000,000) will be paid by the lessor from the proceeds of notes guaranteed by the Company. The Company is negotiating for a long term lease to replace this interim agreement which expires June 1, 1971.

In addition, there are several legal actions pending against the Company. A purported class action is pending in the Supreme Court of the State of New York seeking injunctive relief and $4,001,000,000 for damages suffered as a result of air pollution from the Company's generating plants. Counsel of the Company is of the opinion that the injunctive relief requested will not be granted and that this is not a proper class action under the reported decisions as to New York law. The Attorney General of the State of New York has also commenced an action against the Company alleging that Indian Point No. 1 is damaging the ecology of the Hudson River. The complaint seeks damages in the amount of $5,000,000 and an injunction against the operation of this plant in such a manner as to damage the river.

Note F—Capital stock:

	Shares Authorized	Shares Outstanding		Capital Stock	
Preferred Stock	Dec. 31, 1970	Dec. 31, 1970	Dec. 31, 1969	Dec. 31, 1970	Dec. 31, 1969
$5 Cumulative Preferred Stock without par value[1] (a)	1,915,319	1,915,319	1,915,319	$174,999,927	$174,999,927
Cumulative Preferred Stock (b) ($100 par value)	5,000,000				
5¾ % Series A[2]		600,000	600,000	60,000,000	60,000,000
5¼ % Series B[2]		750,000	750,000	75,000,000	75,000,000
4.65% Series C[1]		600,000	600,000	60,000,000	60,000,000
4.65% Series D[2]		750,000	750,000	75,000,000	75,000,000
5¾ % Series E[2]		500,000	500,000	50,000,000	50,000,000
6.20% Series F[2]		400,000	400,000	40,000,000	40,000,000
8.30% Series G[2]		500,000	—	50,000,000	—
				584,999,927	534,999,927
Cumulative Preference Stock ($100 par value)					
6% Convertible Series B[1] (c) (d)	2,250,000	912,813	915,373	91,281,283	91,537,283
Total Preferred Stock				$676,281,210	$626,537,210
Common Stock ($10 par value)[3] (c) (d)	50,000,000	42,432,975	39,161,774	$872,185,197	$798,494,799
Capital Stock Expense (e)				($ 17,423,185)	($ 14,361,621)

(a) The Board of Trustees of the Company has by resolution determined that an amount equal to the excess of the $100 per share involuntary liquidating value over the stated value of the outstanding $5 Cumulative Preferred Stock will not be applied to the payment of dividends. The amount of such excess is $16,531,973. The $5 Cumulative Preferred Stock is redeemable at $105 per share.

(b) The Cumulative Preferred Stock is redeemable at $107 per share prior to February 1, 1972 and February 1, 1973 for Series A and Series B, respectively, at $103.50 per share prior to August 1, 1974 and August 1, 1975 for Series C and Series D, respectively, at $108 per share prior to August 1, 1976 for Series E, at $110 per share prior to August 1, 1977 for Series F, and at $110 per share prior to November 1, 1980 for Series G. After such dates these shares are redeemable at declining prices. Shares of the Series E, F and G Stock may not be redeemed prior to August 1, 1973, August 1, 1977 and November 1, 1977, respectively, from the proceeds of sale of an equal or prior security having an interest or dividend cost less than the dividend rate of the applicable Series.

(c) Each share of the Preference Stock is convertible into 2.96 shares of Common Stock. Of the shares of Common Stock authorized but unissued, 2,701,983 shares were reserved at December 31, 1970 for conversion of Preference Stock 6% Convertible Series B. During 1970, 2,560 shares of Preference Stock were converted into 7,450 shares of Common Stock. The Preference Stock is redeemable on or before April 30, 1971 at $103 per share, and at declining prices thereafter.

(d) After deduction of 19 shares ($1,917) of Cumulative Preference Stock and 5,982 shares ($197,406) of Common Stock acquired by the Company in 1969 and held in treasury at December 31, 1970.

(e) The increase in Capital Stock Expense of $3,061,564 in 1970 is attributable principally to expenses incurred in connection with the authorization, issuance and sale of Series G Preferred Stock and Common Stock in 1970.

[1] Listed on the New York Stock Exchange. [2] Not listed. [3] Listed on the New York, Midwest, Pacific Coast and the Amsterdam, Holland, Stock Exchanges; unlisted trading on the Boston, Detroit and Philadelphia-Baltimore-Washington Stock Exchanges.

Note G—Long term debt:

Consolidated Edison Company of New York, Inc. (including merged former subsidiary companies):	Dec. 31, 1970	Dec. 31, 1969
First and Refunding Mortgage Bonds:		
2¾ % Series A, due March 1, 1982	$ 100,000,000	$ 100,000,000
2⅝ % Series B, due April 1, 1977	100,000,000	100,000,000
2¾ % Series C, due June 1, 1972	60,000,000	60,000,000
3 % Series D, due November 1, 1972	30,000,000	30,000,000
3 % Series E, due January 1, 1979	50,000,000	50,000,000
3 % Series F, due February 1, 1981	60,000,000	60,000,000
3¼ % Series G, due May 1, 1981	40,000,000	40,000,000
3⅜ % Series H, due March 1, 1982	50,000,000	50,000,000
3½ % Series I, due February 1, 1983	40,000,000	40,000,000
3⅜ % Series J, due January 1, 1984	35,000,000	35,000,000
3⅜ % Series K, due December 1, 1985	70,000,000	70,000,000
3⅝ % Series L, due May 1, 1986	30,000,000	30,000,000
4¼ % Series M, due October 1, 1986	40,000,000	40,000,000
5 % Series N, due October 1, 1987	60,000,000	60,000,000
4 % Series O, due June 1, 1988	50,000,000	50,000,000
4¾ % Series R, due June 1, 1990	50,000,000	50,000,000
5 % Series S, due December 1, 1990	75,000,000	75,000,000
4¾ % Series T, due June 1, 1991	50,000,000	50,000,000
4⅝ % Series U, due November 1, 1991	60,000,000	60,000,000
4⅜ % Series V, due June 1, 1992	100,000,000	100,000,000
4⅜ % Series W, due October 1, 1992	75,000,000	75,000,000
4⅜ % Series X, due December 1, 1992 (not listed)	60,000,000	60,000,000
4.40% Series Y, due June 1, 1993 (not listed)	75,000,000	75,000,000
4⅝ % Series AA, due December 1, 1993	75,000,000	75,000,000
4.60% Series BB, due October 15, 1994 (not listed)	125,000,000	125,000,000
5 % Series CC, due January 1, 1996 (not listed)	100,000,000	100,000,000
5.90% Series DD, due December 15, 1996 (not listed)	75,000,000	75,000,000
6¼ % Series EE, due August 1, 1997 (not listed)	80,000,000	80,000,000
6.85% Series FF, due October 1, 1998 (not listed)	60,000,000	60,000,000
7.90% Series GG, due April 1, 1999 (not listed)	80,000,000	80,000,000
8.90% Series HH, due January 15, 2000 (not listed)	125,000,000	—
9⅜ % Series II, due September 15, 2000 (not listed)	150,000,000	—
	2,230,000,000	1,955,000,000
The Edison Electric Illuminating Company of New York, First Consolidated Mortgage Gold Bonds, 5%, due July 1, 1995 (non-callable)	1,437,000	1,437,000
Kings County Electric Light and Power Company, Purchase Money, 6% 99 Years Gold Bonds, due October 1, 1997 (non-callable)	1,452,500	1,452,500
Staten Island Edison Corporation, First Mortgage Bonds, 2⅞ % Series, due May 1, 1979 (not listed)	2,750,000	2,750,000
Westchester Lighting Company, General Mortgage Bonds, 3% Series, due May 1, 1979	12,000,000	12,000,000
The Yonkers Electric Light and Power Company, 2⅝ % Debentures due July 1, 1976	9,000,000	9,000,000
Total	$2,256,639,500	$1,981,639,500

The above issues are listed on the New York Stock Exchange unless otherwise indicated.

Auditor's Opinion

PRICE WATERHOUSE & CO.

60 Broad Street
New York 10004

To the Board of Trustees and Stockholders of
Consolidated Edison Company of New York, Inc.

We have examined the balance sheets of Consolidated Edison Company of New York, Inc. at December 31, 1970 and 1969, the related statements of income and retained earnings and the statements of source and application of funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Company in 1970 adopted minimum "guideline lives" for tax depreciation retroactive to January 1, 1969. Net income for 1969 as previously reported has been restated to reflect the reduction in federal income tax and increase in net income resulting from the use of such minimum "guideline lives" tax depreciation. In addition, the Company changed its billing procedure in 1970 for residential and small commercial customers of electric and gas services from bi-monthly to monthly billing. The effects of these accounting changes on net income for 1969 and 1970 are set forth in Note B to the financial statements.

In our opinion, the accompanying financial statements examined by us present fairly the financial position of Consolidated Edison Company of New York, Inc. at December 31, 1970 and 1969, the results of its operations and the source and application of funds for the years then ended, in conformity with generally accepted accounting principles consistently applied, except for the accounting changes, which we approve, referred to in the preceding paragraph and described in Note B to the financial statements.

February 16, 1971

Price Waterhouse & Co.

A 1706

Statistics

Sales and revenues—1970

Electric	Kilowatthours	% Increase from 1969	Revenues	% Increase from 1969
Residential*	8,208,180,728	11.3	$317,899,449	11.6
Commercial-Industrial*	17,633,849,702	4.2	505,756,219	9.5
Railroads and railways	2,843,491,297	3.5	46,777,773	11.1
Public authorities	3,238,414,109	6.7	78,349,252	9.1
Other electric utilities	475,546,780	Large	3,180,117	85.3
Total	32,399,482,616	6.9	$951,962,810	10.4

Residential—Sales directly to residential customers and to religious institutions.

Commercial-industrial—Sales directly to all types of general customers, also to customers who include residential or commercial tenant-use in the rent and to customers who resell energy to commercial and industrial tenants.

Railroads and railways—Sales to the three electrified railroads running into New York, the New York City Transit Authority, the Staten Island Rapid Transit and Port Authority Trans-Hudson Corporation.

Public authorities—Sales to municipal and other governmental authorities, including public street and highway lighting.

Other electric utilities—Principally delivery over tie lines inter-connecting with other New York State utilities.

Gas	Cubic Feet	% Increase from 1969	Revenues	% Increase from 1969
Residential*	39,912,240,100	7.7	$ 73,441,208	6.6
General*	23,806,234,000	6.4	40,191,859	4.3
Interruptible—Large volume	2,947,860,000	Large	1,307,273	Large
Public authorities	2,225,318,200	22.2	2,838,672	15.1
Total	68,891,652,300	11.9	$117,779,012	7.0

Residential—Sales directly to residential customers and to religious institutions, including sales for heating.

General—Sales to general-use customers for use in their operations including heating.

Interruptible—Large volume—Sales to certain general-use customers who use large quantities of gas on an interruptible basis.

Public authorities—Sales to municipal and other governmental authorities.

Steam	Thousands of Pounds	% Increase from 1969	Revenues	% Increase from 1969
General	1,738,855	3.3	$ 4,188,778	2.9
Annual power	27,311,904	7.6	39,493,888	8.2
Apartment house	6,106,088	3.5	9,595,779	4.7
Public authorities	1,781,879	4.7	2,502,526	9.3
Total	36,938,726	6.6	$55,780,971	7.2

General—Sales to all customers with low load-factor use.

Annual power—Sales for power, or power and heat use.

Apartment house—Sales to apartment houses and hotels.

Public authorities—Sales to municipal and other governmental authorities.

*Year 1970 includes additional billings resulting from changes to monthly billing for residential and small commercial customers. (See Page 26)

A 1707

Operating Revenues (000 omitted)

	Electric	Gas	Steam	Other	Total
1970*	**$951,963**	**$117,779**	**$55,781**	**$2,957**	**$1,128,480**
1969	862,123	110,065	52,038	2,472	1,026,698
1968	823,488	105,264	49,617	2,561	980,930
1967	778,006	104,392	44,596	2,582	929,576
1966	721,695	105,271	39,245	2,328	868,539
1965	693,591	104,291	38,425	2,786	839,093
1964	645,045	103,550	36,934	2,811	788,340
1963	605,189	104,982	35,259	2,701	748,131
1962	583,667	103,618	34,178	2,802	724,265
1961	561,922	100,313	33,464	2,690	698,389
1960	526,506	95,268	30,740	2,642	655,156

Sales (000 omitted)

				Meters		
	Electric	Gas	Steam	Electric	Gas	Steam
	Kilowatthours	Cubic Feet	Thousands of Pounds	Number at December 31		
1970*	**32,399,483**	**68,891,652**	**36,939**	**3,054,453**	**1,291,857**	**4,616**
1969	30,295,662	61,588,317	34,662	3,052,875	1,296,589	4,559
1968	28,747,929	57,742,868	32,703	3,050,396	1,301,552	4,535
1967	27,539,517	56,742,468	30,276	3,047,579	1,306,964	4,490
1966	26,657,594	53,300,573	27,601	3,055,141	1,319,132	4,485
1965	25,258,255	51,894,458	26,642	3,042,138	1,320,427	4,455
1964	23,847,676	50,281,888	25,710	3,025,282	1,322,937	4,431
1963	22,185,558	49,234,821	23,964	2,994,773	1,322,574	4,334
1962	20,833,861	47,810,171	22,141	2,949,389	1,321,169	4,190
1961	20,204,268	46,049,037	21,690	2,922,732	1,325,140	4,086
1960	18,899,691	43,140,040	19,712	2,904,624	1,333,007	4,100

Population served, 1970—8,700,000　　Service area—660 square miles

*Includes additional billings resulting from changes to monthly billing for residential and small commercial customers.

Electric	$14,856,000—336,276,000 kwhrs
Gas	1,442,000—450,373,000 cubic feet

Employees

	Payroll (000 omitted)			Employees	
	Operating	Construction (and other accounts)	Total	Average Pay of Weekly Employees	Number at December 31
1970	**$189,069**	**$69,000**	**$258,069**	**$191.68**	**23,726**
1969	172,413	64,315	236,728	178.90	23,428
1968	166,385	53,305	219,690	157.31	24,272
1967	162,742	49,612	212,354	153.09	25,056
1966	155,213	45,454	200,667	149.64	24,203
1965	149,651	50,598	200,249	146.95	23,863
1964	147,025	46,885	193,910	139.72	24,417
1963	143,302	45,736	189,038	134.92	24,621
1962	141,410	44,561	185,971	133.81	24,962
1961	137,620	43,321	180,941	131.15	24,545
1960	136,725	42,015	178,740	126.60	24,866

Payroll figures include overtime and premium payments but do not include pension payments.

A 1708

Taxes (000 omitted)	**1970**	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960
Taxes, other than Federal income											
Local	**$209,595**	$189,892	$177,405	$167,655	$152,957	$136,999	$128,394	$116,020	$106,799	$102,498	$ 98,077
State	**41,805**	38,296	34,587	26,498	25,367	23,841	21,505	20,798	20,173	20,337	17,658
Federal	**9,088**	8,841	8,132	7,281	6,784	4,772	4,832	5,011	4,580	4,057	4,036
	260,488	237,029	220,124	201,434	185,108	165,612	154,731	141,829	131,552	126,892	119,771
Charged to:											
Operating taxes	**246,792**	226,465	211,314	193,591	178,712	160,102	151,676	139,187	129,292	123,364	117,748
Operations — principally production expenses	**4,732**	3,615	3,414	2,911	2,701	2,961	3,055	2,642	2,260	2,280	2,023
Other accounts — principally construction	**8,964**	6,949	5,396	4,932	3,695	2,549	—	—	—	1,248	—
	$260,488	$237,029	$220,124	$201,434	$185,108	$165,612	$154,731	$141,829	$131,552	$126,892	$119,771
Federal Income Tax Charged to:											
Operations	**$(17,500)**	$ 7,200	$ 22,200	$ 16,300	$ 14,100	$ 17,700	$ 20,200	$ 23,400	$ 29,800	$ 36,600	$ 39,400
Other accounts	**—**	—	(1,230)	(5,640)	340	1,850	(2,810)	(2,940)	(1,055)	880	—
	$(17,500)	$ 7,200	$ 20,970	$ 10,660	$ 14,440	$ 19,550	$ 17,390	$ 20,460	$ 28,745	$ 37,480	$ 39,400

Electric System

	Generating Capacity December 31 Kilowatts	Capability At Time Of System Summer Peak-Kilowatts: Net Generating Capacity	Net Firm Purchases	Total Capacity Resources	System Summer Peak* Date	System Summer Peak* Kilowatts	Heat Rate Btu per Kwhr	Residential Kwhr per Customer	Residential Revenue per Kwhr
1970	**9,420,000**	**8,957,000**	**520,000**	**9,477,000**	**Aug. 28**	**7,041,000****	**12,238**	**3,180**	**3.9¢**
1969	8,296,000	8,143,000	260,000	8,403,000	July 17	7,266,000**	11,757	2,950	3.9
1968	7,722,000	7,497,000	523,000	8,020,000	July 17	6,960,000	11,570	2,736	4.0
1967	7,588,000	7,512,000	20,000	7,532,000	July 24	6,147,000	11,535	2,522	4.0
1966	7,567,000	7,477,000	250,000	7,727,000	July 13	6,154,000	11,560	2,439	3.8
1965	7,595,000	7,527,000	260,000	7,787,000	June 23	5,710,000	11,751	2,277	3.9
1964	6,607,000	6,544,000	260,000	6,804,000	July 1	5,505,000	11,505	2,161	3.8
1963	6,663,000	6,605,000	260,000	6,865,000	July 29	5,105,000	11,372	2,050	3.9
1962	5,885,000	5,637,000	260,000	5,897,000	June 19	4,852,000	12,149	1,939	4.0
1961	5,301,000	5,197,000	78,000	5,275,000	Sept. 13	4,744,000	12,378	1,937	4.0
1960	4,883,000	4,816,000	87,000	4,903,000	Aug. 30	4,352,000	12,461	1,780	4.1

*One hour net maximum load distributed locally.

**1969 peak reduced approximately 90,000 kw and 1970 peak approximately 700,000 kw by voltage reduction and customer appeals to conserve electricity.

Stockholder Statistics

	Number of Stockholders December 31: Preferred Stock	Common Stock	Total	Shares December 31: Preferred	Common***	Common Stock Record: Earnings per Share***	Dividends per Share***
1970	**64,405**	**251,424**	**315,829**	**6,928,132**	**42,432,975**	**$2.30**	**$1.80**
1969	64,458	234,689	299,147	6,430,692	39,161,774	2.68†	1.80
1968	65,929	227,889	293,818	6,435,131	37,290,409	2.57	1.80
1967	25,413	229,156	254,569	5,515,319*	37,257,292	2.58	1.80
1966	25,389	225,572	250,961	5,115,319*	37,257,292	2.31	1.80
1965	24,313	199,635	223,948	4,615,319	37,257,292	2.42	1.80
1964	24,115	178,458	202,573	3,865,319	37,257,292	2.21	1.65
1963	61,642**	173,435	235,077	4,178,349**	34,977,952	2.09	1.6125
1962	67,993**	170,032	238,025	4,209,833**	32,188,088	2.20	1.50
1961	24,991	169,497	194,488	3,265,319	32,178,038	1.89	1.50
1960	25,014	166,023	191,037	2,515,319*	31,035,446	1.94	1.50

*Including Capital Stock Subscribed. **Including Preference Stock called Sept. 11, 1964.

***Restated to reflect two-for-one stock split effective Feb. 5, 1965.

†Restated

Trustees

E. Virgil Conway
Chairman and President
The Seamen's Bank For Savings

John Doar
President, Bedford Stuyvesant
Development & Services Corp.

Fredrick M. Eaton
Partner
Shearman & Sterling

Grayson L. Kirk
President Emeritus
Columbia University

Hobart D. Lewis
President and Editor in Chief
The Reader's Digest Association, Inc.

Charles F. Luce
Chairman of the Board

Milton C. Mumford
Chairman of the Board
Lever Brothers Company

J. Wilson Newman
Chairman of the Finance Committee
Dun & Bradstreet, Inc.

Richard K. Paynter, Jr.
Director
New York Life Insurance Company

Richard S. Perkins
Trustee and Corporate Director
New York, N.Y.

William S. Renchard
Chairman of the Board
Chemical Bank

Louis H. Roddis, Jr.
President

Lawrence A. Wien
Senior Partner
Wien, Lane & Malkin

James D. Wise
Former Chairman of the Board
Bigelow-Sanford, Inc.

Management

(As of January 1, 1971)

Charles F. Luce
Chairman of the Board

Louis H. Roddis, Jr.
President

John T. Conway
Executive Assistant
to the Chairman

Russell W. Holt
Special Assistant to the Chairman

Bernard E. Gallagher
Executive Vice President—
Division Operations

Walter R. Grant
Executive Vice President—
Finance

Harry G. Woodbury
Executive Vice President—
Central Operations

William W. Lapsley
Senior Vice President—
Central Services

William E. Wall
Senior Vice President—
Gas Operations

Joseph D. Block
Vice President and General Counsel

James G. Stark
Vice President and Treasurer

Warren B. Coburn
General Auditor

Walter A. Morris, Jr.
Secretary

Parker C. Peterman
Controller

Vice Presidents

Arthur N. Anderson

Arthur J. Bazeley
Bronx Division

William J. Cahill, Jr.
Mechanical Engineering

William E. Caldwell, Jr.
Queens Division

John V. Cleary, Jr.
Staten Island Division

Edward J. Doyle, Jr.
Commercial Operations

Walter B. Fisk
Inter-Utility Operations

Thomas A. Griffin, Jr.
Power Supply

Arthur Hauspurg
Electrical Engineering and
System Planning

Alexander C. Husband
Construction

Joseph T. Hydok
Manhattan Division

Robert O. Lehrman
Public Affairs

Robert J. Marcus
Employee Relations

Robert B. Stevens
Westchester Division

John V. Thornton
Rates and Revenues

Emanuel Toder
General Accounting and Taxes

Max M. Ulrich
Brooklyn Division

Senior Officers Who Left
the Company during 1970

Thomas C. Duncan
Executive Vice President
Retired 8-1-70

C. Wesley Meytrott
Vice President
Retired 3-1-70

Myles V. Whalen, Jr.
Vice President and General Counsel
Resigned 7-2-70

Annual Meeting:

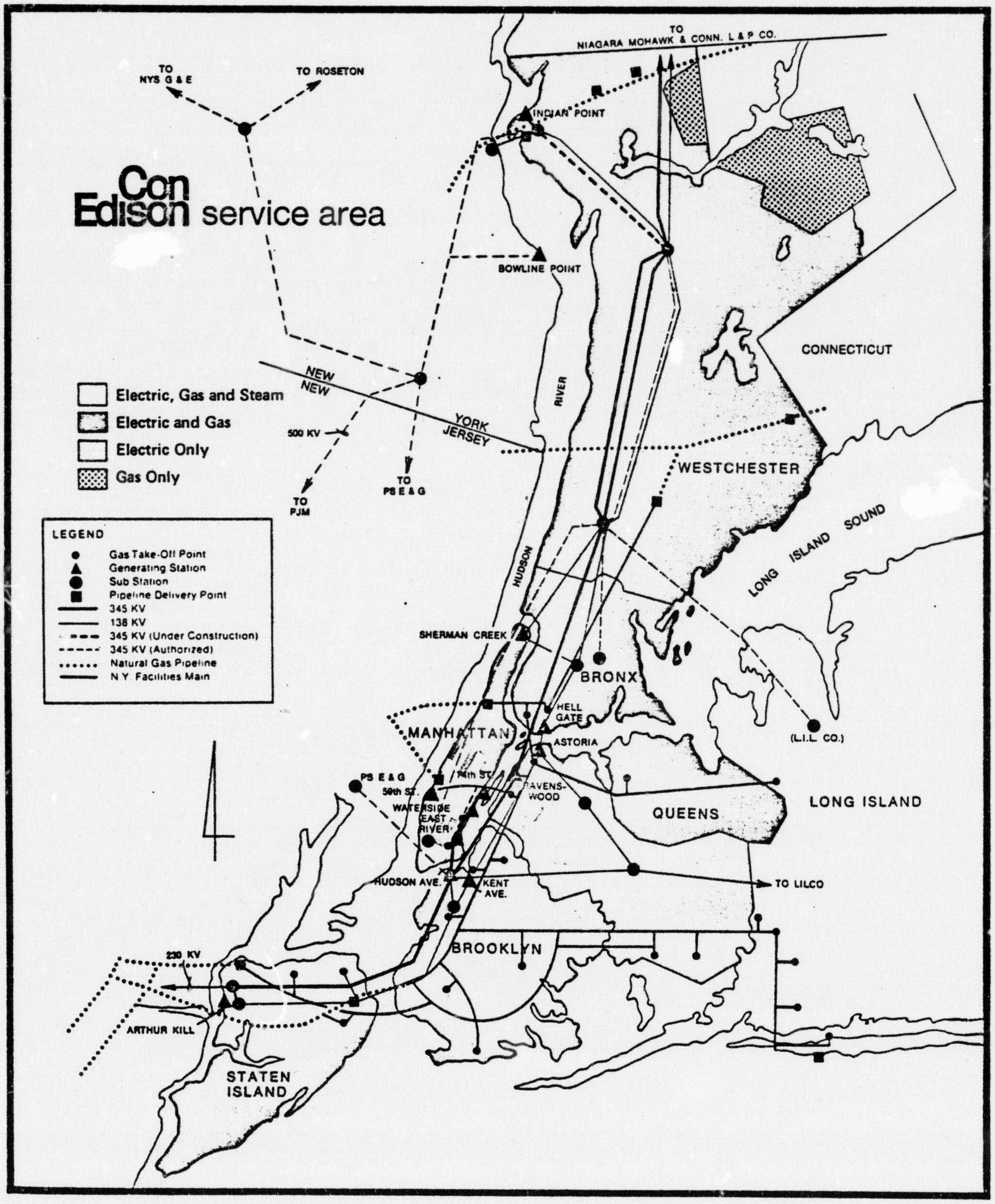
The Annual Meeting of Stockholders will be held on Monday, May 17, 1971, at 1:30 P.M. in the Grand Ballroom of the Commodore Hotel, 129 East 42nd Street, New York, N.Y. Proxies for this meeting will be requested from stockholders entitled to vote at the meeting when notice of this meeting, proxy statement, and form of proxy are mailed on or about April 9th.

Common Stock:

Listed on the New York, Midwest, Pacific Coast, and the Amsterdam, Holland Stock Exchanges; unlisted trading on the Boston, Detroit, and Philadelphia-Baltimore-Washington Stock Exchanges.

Transfer Agent—*Office of the Company, 4 Irving Place, New York, N.Y. 10003; Continental Illinois National Bank and Trust Company of Chicago, 231 South LaSalle Street, Chicago, Illinois 60604; Bank of America National Trust and Savings Association, 300 Montgomery Street, San Francisco, California 94120.*

Registrars—*First National City Bank, 111 Wall Street, New York, N.Y. 10015; The First National Bank of Chicago, 38 South Dearborn Street, Chicago, Illinois 60603; Crocker-Citizens National Bank, 1 Montgomery Street, San Francisco, California 94104.*



Con Edison service area

Electric, Gas and Steam
Electric and Gas
Electric Only
Gas Only
LEGEND
Gas Take-Off Point
Generating Station
Sub Station
Pipeline Delivery Point
345 KV
138 KV
345 KV (Under Construction)
345 KV (Authorized)
Natural Gas Pipeline
N.Y. Facilities Main
TO NIAGARA MOHAWK & CONN. L & P CO.
TO NYS G & E
TO ROSETON
INDIAN POINT
BOWLINE POINT
CONNECTICUT
NEW YORK
NEW JERSEY
500 KV
TO PJM
TO PS E & G
RIVER
HUDSON
WESTCHESTER
LONG ISLAND SOUND
SHERMAN CREEK
BRONX
HELL GATE
(L.I.L. CO.)
MANHATTAN
ASTORIA
PS E & G
74th ST.
59th ST.
RAVENSWOOD
WATERSIDE
EAST RIVER
QUEENS
LONG ISLAND
HUDSON AVE.
KENT AVE.
TO LILCO
BROOKLYN
230 KV
ARTHUR KILL
STATEN ISLAND

A 1711

Con Edison Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003

1. State whether Con Edison purchased electrical power [on a firm basis] prior to May 19, 1970, for use during the summer of 1970. If the answer is affirmative, then for each such purchase state:

a. the amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive such power and when it stopped receiving it;

f. the price of the power per KWH including demand charge, energy charge, and fuel adjustments;

g. all additional charges or surcharges, such as wheeling or transmission charges, administration and general charges, etc.;

h. whether a written contract was entered into and, if so, the date of such contract; and

i. how the power was classified, i.e. firm, interruptible, etc.

Answer:

On information and belief:

Yes. See the following Table I for information requested in subparagraphs (a)-(h). No answer is required as to subparagraph (i).

TABLE I.

CON EDISON PURCHASES OF FIRM POWER PRIOR TO MAY 19, 1970 FOR SUMMER 1970 CAPABILITY PERIOD

(a) AMOUNT OF POWER PURCHASED (KWH) (1)	(b) FROM WHOM PURCHASED (3)	(c) TRANSMITTER	(d) LOAD FACTOR (1)	(e) COMMENCEMENT AND TERMINATION DATES (4)	(f) PRICE OF POWER (MILLS/KWH)	(g) ADDITIONAL CHARGES	(h) WRITTEN CONTRACT? AND DATE THEREOF
632,315,000	Rochester Gas & Electric Corp.; April 26, 1970	Niagara Mohawk	80%	April 26, 1970 - September 30, 1970	6.59	Wheeling - $538,630.00	Yes; April 1[illegible] 1970
258,589,000	New England Power Corp; April 26, 1970	Connecticut Light & Power	90%	April 26, 1970- September 28, 1970 (2)	5.02	Wheeling - $ 67,662.00	Yes; April 10, 1970
360,780,000	New York State Gas & Electric Corp.; April 26, 1970	Niagara Mohawk	82%	April 26, 1970- September 30, 1970	8.78	Wheeling - $327,370.00	Yes; April 13, 1970

(1) For Summer Capability Period 1970 as defined - June, July, August, & September

(2) Brayton Point Unit Out of service - Scheduled Maintenance 9:PM 9/28/70

(3) It is unclear what plaintiff means by "the date of the purchase"; for the sake of convenience, the date of the commencement of receipt of power has been set forth here as well as under (e).

(4) Termination date indicates termination in the "summer" as defined.

2. State whether Con Edison purchased electrical power on a firm basis between May 20, 1970 and July 21, 1970, for use during the summer of 1970. If the answer is affirmative, then for each such purchase state:

a. the amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive such power and when it stopped receiving it;

f. the price of the power per KWH including demand charge, energy charge and fuel adjustment;

g. all additional charges or surcharges such as wheeling or transmission charges, administrative or general charges, etc; and

h. whether a written contract was entered into and, if so, the date of such contract.

Answer:

On information and belief, no.

3. Other than the AEC power, state whether Con Edison purchased electrical power on a firm basis after July 21, 1970, for use at any time between July 21, 197[0], and October 1, 1970. If the answer is affirmative, then for each such purchase state:

a. the amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive the power and when it stopped receiving it;

f. the price of the power per KWH including [sic]

g. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.; and

h. whether a written contract was entered into and, if so, the date of such contract.

Answer:

On information and belief, no.

4. State whether Con Edison purchased any electrical power on a firm basis for use at any time during the [fall] of 1970. If the answer is affirmative, then for each such purchase state:

a. the amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive the power and when it stopped receiving it;

f. the price of the power per KWH including demand charge, energy charge, and fuel adjustment;

g. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.; and

h. whether a written contract was entered into and, if so, the date of such contract.

Answer:

On information and belief:

Yes. See the following Table II.

TABLE II.

CON EDISON PURCHASES OF FIRM POWER IN FALL 1970

) AMOUNT OF POWER PURCHASED (KWH) (1)	(b) FROM WHOM PURCHASED (2)	(c) TRANSMITTER	(d) LOAD FACTOR	(e) COMMENCEMENT AND TERMINATION DATES (3)	(f) PRICE OF POWER (MILLS/KWH)	(g) ADDITIONAL CHARGES	(h) WRITTEN CONTRACT? AND DATE THEREOF
62,870,000	Rochester Gas & Electric Corp.; October 15, 1970	Niagara Mohawk	40%	October 15, 1970 to October 24, 1970	6.53	Wheeling; $105,960.00	Yes; April 13, 1970
85,290,000	New York State Electric and Gas Corp.; October 1, 1970	Niagara Mohawk	99%	October 1, 1970 to October 24, 1970	8.05	Wheeling; $64,440.00	Yes; April 13, 1970

(1) For fall 1970; "fall" is taken as the months of October, November, and December.

(2) It is unclear what plaintiff means by "the date of purchase". For the sake of convenience, the date of commencement of receipt of power in the fall has been set forth here as well as in (e).

(3) The date of commencement is date of commencement in the "fall".

5. State whether Con Edison made any other purchases of power [on a firm basis] at any time during 1970 other than those described in answer to interrogatories 1 through 4 above and the AEC power. If the answer is affirmative, then for each such purchase describe:

a. the amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive the power and when it stopped receiving it;

f. the price of the power per KWH including demand charge, energy charge, and fuel adjustment;

g. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.; and

h. whether a written contract was entered into and, if so, the date of such contract.

[Also, "explore" the pooling arrangements in effect during the period July 21-October 1, 1970.]

Answer:

On information and belief:

Con Edison did not make any other purchases of power on a firm basis at any time during 1970 other than those described in answer to Interrogatories 1 through 4 above and the 200 MW sold to Con Edison by the Tennessee Valley Authority ("TVA") and the Ohio Valley Electric Corporation ("OVEC").

During the period July 21 to October 1, 1970, the New York Power Pool Agreement dated July 21, 1966 was in effect. Con Edison was able to purchase electrical power other than on a firm basis in varying quantities on a short-term basis from the other member utilities in accordance with the terms of the Agreement. A copy of the Agreement is annexed hereto.

In addition, during the period July 21, 1970 to October 1, 1970 Con Edison was similarly able to purchase varying quantities of emergency and economy power on a short-term basis from the member companies of the New England Power Exchange, under the terms of an Interchange Agreement with the New England Power Exchange dated May 1, 1970.

Con Edison did purchase power pursuant to those Agreements during the period July 21, 1970 to October 1, 1970. Specific data regarding the individual, hour-to-hour transactions under these arrangements is not available. Such transactions are multitudinous and records of individual transactions are not maintained.

In addition, under the New York Power Pool Agreement, Con Edison during the period July 21 to October 1, 1970 obtained non-firm power originating from Canadian utilities and the Pennsylvania-New Jersey-Maryland ("PJM") pool in conjunction with Niagara Mohawk's Inter-Connection Agreements with Quebec Hydro, The Hydro-Electric Power Commission of Ontario, and the PJM utility pool.

A 1720

[CONFORMED COPY]

AGREEMENT made as of the 21st day of July, 1966, by and among CENTRAL HUDSON GAS & ELECTRIC CORPORATION ("Central Hudson"), CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. ("Edison"), LONG ISLAND LIGHTING COMPANY ("Long Island"), NEW YORK STATE ELECTRIC & GAS CORPORATION ("State"), NIAGARA MOHAWK POWER CORPORATION ("Niagara"), ORANGE AND ROCKLAND UTILITIES, INC. ("Rockland") and ROCHESTER GAS AND ELECTRIC CORPORATION ("Rochester"), all corporations organized under the laws of the State of New York:

WITNESSETH:

WHEREAS, the parties own and operate electric generating, transmission and distribution facilities and are engaged, among other things, in the business of producing and selling electric energy to other distributors of electric energy and to the general public in the State of New York; and

WHEREAS, the parties believe that substantial mutual benefits may be obtained through the coordinated operation of their electric systems, including increased reliability of service and reduced capital costs made possible by coordinated system planning, and reduced operating costs made possible by the interchange of electric energy for economy purposes; and

WHEREAS, the parties desire to achieve optimum coordination in the planning and operation of their electric systems and to provide a means whereby all parties may realize and share in the mutual benefits which can be obtained thereby;

NOW THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein set forth, the parties hereto do hereby agree with each other, for themselves and for their successors and assigns, to establish and operate a New York Power Pool in accordance herewith.

ARTICLE 1

DEFINITIONS

For the purpose of this Agreement, certain terms used herein are defined as follows:

SECTION 1.01. *Maximum One Hour Independent Net Load.* The Maximum One Hour Independent Net Load of any party for any period shall be the electric energy used to supply the load on that party's system during the clock hour when such usage is greatest in such period. Such usage shall include electric energy delivered to or for the account of other utilities under firm load contracts (i.e., where the supplier is obligated to back up the load covered by the contract with reserve capability) but shall exclude:

(1) electric energy delivered within the amounts of generating capability sold to other utilities (including parties to this Agreement) under separate contract, deliveries of emergency and economy energy, any other deliveries of electric energy to other utilities for other than firm load, and the internal system losses in connection with such deliveries;

(2) loads which are not supplied from the party's Net System Capability; and

(3) internal system losses incurred in the through transmission of energy for others.

SECTION 1.02. *Capability Period.* Capability Periods of approximately six months each are established, as follows: (1) From the last Sunday in April up to but not including the last Sunday in October; and (2) from the last Sunday in October up to but not including the last Sunday in April of the following year, or such other dates as may be determined by the Operating Committee.

SECTION 1.03. *Firm Capability.* Firm Capability, purchased or sold under separate contract, is generating capability which has substantially the same availability to buyer as the buyer's own generating capability.

SECTION 1.04. *Net System Capability.* The Net System Capability of each party hereto in any Capability Period shall be the following:

(1) the dependable net maximum generating capability of installations on its own system; plus

(2) Firm Capability purchases and any reserve generating capability which is made available to the buyer by contract to back up such Firm Capability purchases; less

(3) Firm Capability sales and any reserve generating capability which is made available by the seller by contract to back up such Firm Capability sales.

SECTION 1.05. *Capability Margin.* The Capability Margin of each party hereto, expressed as a percentage of the Maximum One Hour Independent Net Load of such party, shall be the amount by which such party's Net System Capability exceeds its Maximun One Hour Independent Net Load in any Capability Period.

SECTION 1.06. *Required Capability Margin.* The Required Capability Margin for each party hereto, expressed as a percentage of the Maximum One Hour Independent Net Load of such party, shall be the Capability Margin set forth in Schedule A, attached hereto and made a part hereof, or such lesser percentage as may be determined under provisions of Section 6.02.

SECTION 1.07. *Pool Capability Margin.* The Pool Capability Margin, expressed in kilowatts, shall be the amount by which the aggregate of each party's Net System Capability exceeds the aggregate of each party's Maximum One Hour Independent Net Load in any Capability Period.

SECTION 1.08. *Required Pool Capability Margin.* The Required Pool Capability Margin, expressed in kilowatts, shall be the aggregate of the amounts, expressed in kilowatts, determined for each party hereto from the percentages set forth in Schedule A hereof, in any Capability Period.

SECTION 1.09. *Required System Capability.* The Required System Capability of each party hereto for any Capability Period shall be its Maximum One Hour Independent Net Load in such Capability Period multiplied by 1.0 plus its Required Capability Margin expressed as a decimal.

Section 1.10. *Surplus Capability.* The Surplus Capability of each party hereto in each Capability Period shall be the amount, if any, by which its Net System Capability exceeds its Required System Capability.

Section 1.11. *Capability Deficiency.* The Capability Deficiency of each party hereto in each Capability Period shall be the amount, if any, by which its Required System Capability exceeds its Net System Capability.

Section 1.12. *Managing Committee.* See Article 3.

Section 1.13. *Operating Committee.* See Article 4.

Section 1.14. *Planning Committee.* See Article 5.

Section 1.15. *Operating Capability.* The dependable net capability of generating equipment carrying load or ready to take load at any time.

Section 1.16. *Spinning Reserve Capability.* The excess of Operating Capability over load, including firm sales to others, at any time.

Section 1.17. *Required Minimum Aggregate Spinning Reserve Capability.* The minimum Spinning Reserve Capability which must be provided on the interconnected systems of the parties hereto, as determined by the Operating Committee (see Section 4.07).

Section 1.18. *Required Minimum Spinning Reserve Capability.* Each party's allocated share of Required Minimum Aggregate Spinning Reserve Capability.

Section 1.19. *Operating Capability Requirements.* The amount of Operating Capability required to supply a party's load, firm sales and its Required Minimum Spinning Reserve Capability.

Section 1.20. *Emergency Capability and Energy.* Operating Capability and Energy supplied from the seller's Spinning Reserve Capability in excess of its load and firm commitments to others and purchased during periods when buyer experiences an outage and buyer has insufficient Operating Capability to supply its load and firm commitments to others. A buyer shall be entitled to Emergency Capability and Energy only for the period and under the conditions specified in Section 7.05 hereof.

Section 1.21. *Supplemental Capability.* Operating Capability, other than Firm Capability or Assured Economy Capability, required to meet Operating Capability Requirements.

Section 1.22. *Supplemental Energy.* Energy scheduled within the limits of Supplemental Capability purchased.

Section 1.23. *Assured Economy Capability.* Operating Capability purchased for a mutually agreed-upon period when, for economy purposes, the buyer withholds specified generating facilities from service or schedules less than maximum quantities of Operating Capability available under contracts in effect during such periods.

Section 1.24. *Assured Economy Energy.* Electric energy scheduled for an agreed upon period within the limits of Assured Economy Capability purchased.

Section 1.25. *Economy Energy.* Electric energy purchased on an hourly basis during periods when, for economy purposes, the buyer restricts the generation of energy from its Operating Capability or restricts the purchase of energy available under contracts in effect during such periods.

Section 1.26. *Buyer's Value for Energy.* The estimated decremental fuel and maintenance cost or purchased energy cost, adjusted for losses on the buyer's transmission system, which a buyer will avoid by restricting the generation of energy from its own Operating Capability or by restricting the purchase of energy under contracts for the purchase of capability, and by purchasing instead the equivalent quantity of Assured Economy Energy or Economy Energy.

Section 1.27. *Buyer's Value for Operating Capability.* The estimated aggregate of all applicable costs, such as start-up and shut-down costs and hourly operating costs, including labor costs, which a buyer will avoid by withholding operable generating facilities from operation or by restricting the purchase of Operating Capability under contracts for the purchase of Firm Capability, and by purchasing instead the equivalent quantity of Assured Economy Capability hereunder.

Section 1.28. *Seller's Cost for Energy.* The estimated incremental fuel and maintenance cost or purchased energy cost, adjusted for losses on the seller's transmission system, which a seller incurs in order to generate energy or purchase energy for resale hereunder.

Section 1.29. *Seller's Cost for Operating Capability.* The estimated aggregate of all applicable additional costs, such as start-up and shut-down costs, and hourly operating costs, including labor costs, incurred by a seller to provide Operating Capability or to purchase from other than Pool members Operating Capability for resale.

Section 1.30. *Energy Savings.* The difference between Buyer's Value for Energy and Seller's Cost for Energy after both are adjusted for losses, if any, to the point of receipt on the buyer's system.

Section 1.31. *Operating Capability Savings.* The difference between Buyer's Value for Operating Capability and Seller's Cost for Operating Capability.

Section 1.32. *Intervening Party (ies).* Any party or parties whose transmission facilities are required by other parties hereto to accommodate any of the Operating Capability or energy transactions provided for under Article 7 hereof.

ARTICLE 2

Scope

Section 2.01. The parties agree to coordinate the development and operation of their respective electric production and transmission facilities in order to obtain optimum reliability of service and efficiency upon the interconnected systems of the parties hereto.

Section 2.02. In accordance with the terms and conditions hereinafter specified, each party agrees to (1) provide and maintain Required System Capability and Operating Capability Requirements;

(2) purchase and sell Operating Capability and energy for the purposes and under the conditions set forth herein; (3) purchase and sell Firm Capability and transmit the energy associated therewith under separate contract with any of the other parties hereto upon mutually satisfactory terms and conditions; (4) make the capacity of its transmission facilities available to the other parties hereto; (5) coordinate the maintenance of its generating facilities with the maintenance schedules of all other parties hereto; and (6) coordinate its planning with that of the other parties hereto with respect to the nature, location, and date of installation of additional generating and interconnecting transmission facilities.

Section 2.03. Transactions involving sales of Operating Capability or energy, and the transmission of energy, shall be made with due recognition of each party's responsibility for the supply of its own system load, as well as its cooperative responsibility to the New York Power Pool, as provided for hereinafter in Sections 7.01 and 7.04.

Section 2.04. Any party may enter into emergency and economy interchange arrangements with others who are not parties hereto with respect to the purchase or sale of Operating Capability and energy. The parties hereto may contract with each other or with others who are not parties hereto for the purchase or sale of generating capability to the extent that such contracts may be performed without impairing the ability of any party hereto to fulfill its obligations under Articles 6 and 7 hereof.

ARTICLE 3

Managing Committee

Section 3.01. The parties shall establish a Managing Committee to administer this Agreement and to facilitate its uniform interpretation. Each party shall designate one representative and an alternate to serve on the Managing Committee. The expenses of each member of the Managing Committee shall be borne by the party he represents. The unanimous affirmative vote or consent of all members of the Managing Committee shall be required to authorize any action or determination by such committee.

Section 3.02. The Managing Committee shall select annually members to act as chairman and vice chairman. The offices of chairman and vice chairman shall be changed annually in rotation among the members of the committee. Each year the vice chairman of the committee during the preceding year shall succeed to the chairmanship. The Managing Committee shall meet at such times as the chairman may determine.

SECTION 3.03. The Managing Committee shall undertake studies looking towards the designation of a single operator to coordinate the operations of the New York Power Pool, the provision for the facilities and staff necessary to carry out the functions to be delegated to such operator, and the distribution of costs for such facilities and staff among the parties hereto.

SECTION 3.04. After consideration of the recommendations of the Operating Committee and the Planning Committee, and upon the unanimous agreement of its members, the Managing Committee may amend the schedules attached hereto.

ARTICLE 4

OPERATING COMMITTEE

SECTION 4.01. The parties shall establish an Operating Committee to coordinate the operations and activities of the parties hereunder. Each party shall designate one representative and an alternate to serve on the Operating Committee. The unanimous affirmative vote or consent of all members of the Operating Committee shall be required to authorize any action, determination, or recommendation by such committee. If the Operating Committee is unable to reach unanimous agreement on any matter, upon request of any member of the Operating Committee the matter shall be referred to the Managing Committee for settlement.

SECTION 4.02. The expenses of each member of the Operating Committee shall be borne by the party he represents. The expenses incurred by the Operating Committee in the course of its studies hereunder shall be allocated among the parties hereto in an equitable manner by the Managing Committee.

SECTION 4.03. The Operating Committee shall select annually members to act as chairman and vice chairman. The offices of chairman and vice chairman shall be changed annually in rotation among the members of the committee. Each year the vice chairman of the committee during the preceding year shall succeed to the chairmanship. The Operating Committee shall meet at such times as the chairman may determine.

Section 4.04. The Operating Committee shall establish such rules and practices as may be required to coordinate the operation of the systems of the parties hereto so as to insure reliability of service and economic operation.

Section 4.05. The Operating Committee shall formulate uniform standards and procedures for the determination of costs used as the basis of transactions hereunder.

Section 4.06. The Operating Committee shall establish maintenance schedules for the New York Power Pool.

Section 4.07. The Operating Committee shall determine the Required Minimum Aggregate Spinning Reserve Capability to be operated within the New York Power Pool and shall establish methods of allocating a portion thereof to each individual party as Required Minimum Spinning Reserve Capability.

Section 4.08. The Operating Committee shall review the Required Capability Margin of the parties hereto periodically in cooperation with the Planning Committee, and, if experience or the results of studies indicate the desirability of change, shall recommend changes thereto to the Managing Committee. The Operating Committee may also examine and review the Net System Capability of the parties hereto, the adequacy of system interconnections, and the load forecasts of the parties and recommend to the Managing Committee such action as they consider desirable.

Section 4.09. The Operating Committee through its chairman shall submit regular reports of its activities to the Managing Committee and the Planning Committee. The Managing Committee may modify or reject any action, determination, or recommendation of the Operating Committee.

ARTICLE 5

PLANNING COMMITTEE

SECTION 5.01. The parties shall establish a Planning Committee to coordinate planning for the installation of additional generating capability and interconnecting transmission facilities within the New York Power Pool. The Planning Committee shall also coordinate planning between the New York Power Pool and adjoining pools and other regional power coordinating agencies to the extent appropriate. Each party shall designate one representative and one alternate to serve on the Planning Committee.

SECTION 5.02. The expense of each member of the Planning Committee shall be borne by the party he represents. The expenses incurred by the Planning Committee in the course of its studies hereunder shall be allocated among the parties hereto in an equitable manner by the Managing Committee.

SECTION 5.03. The Planning Committee shall select annually members to act as chairman and vice chairman. The offices of chairman and vice chairman shall be changed annually in rotation among the members of the committee. Each year the vice chairman of the committee during the preceding year shall succeed to the chairmanship. The Planning Committee shall meet at such times as the chairman may determine.

SECTION 5.04. The Planning Committee will study and report upon future load requirements and the need for additional generating and transmission facilities to best implement the purposes of the New York Power Pool. These studies will include such transmission network studies of the systems of the parties hereto as may be required to determine the need for and the best location for additional generating equipment and transmission facilities, additional interconnections with other electric systems, and any other matters of a similar or related nature which will aid in achieving the purposes of this Agreement.

SECTION 5.05. The parties hereto shall furnish the Planning Committee system load and capability forecasts, statistical data, and any other information which will reasonably be required in the course of the studies undertaken by the committee. The Planning Committee shall make the results of its studies and its recommendations available to the Managing Committee and the Operating Committee.

Section 5.06. In the event that the Planning Committee determines that a need exists within the New York Power Pool for the installation of additional generating or transmission facilities, the committee shall report thereon to the Managing Committee. In the event that it appears advantageous, for reasons of system reliability or economy, to stagger the installation of new facilities over a period of time and for some or all of the parties hereto to sell excess generating capability during the interim periods in order to obtain the maximum benefits which may be realized from coordinated intersystem operation, the Planning Committee report shall include relevant details and recommendations as to such transactions.

Section 5.07. The Planning Committee shall review the Required Capability Margin of the parties hereto periodically in cooperation with the Operating Committee, and if experience or the results of studies indicate the desirability of change, shall recommend changes thereto to the Managing Committee.

ARTICLE 6

Installed Capability

Section 6.01. Prior to the commencement of each Capability Period, each party hereto shall estimate its Required System Capability for the ensuing Capability Period and shall provide and maintain a Net System Capability at least equal to such estimated Required System Capability throughout the ensuing Capability Period. The same obligations shall apply to any interim period between the effective date hereof and the beginning of the first full Capability Period.

Section 6.02. If, in any Capability Period, the Pool Capability Margin is less than the Required Pool Capability Margin, the Required Capability Margin of each of the parties hereto shall be reduced proportionately in the ratio of the Pool Capability Margin to the Required Pool Capability Margin.

Section 6.03. At the end of each Capability Period after the effective date hereof, the Maximum One Hour Independent Net Load actually experienced by each party hereto during the preceding Capability Period, the Required Capability Margin, and the Net System Capability of each party hereto, adjusted, if appropriate, pursuant to Section 6.04 hereof, shall be used to determine the actual Required System Capability and the Surplus Capability or Capability Deficiency of each party during the preceding Capability Period.

Section 6.04. In the event the generating capability available to a party changes during a Capability Period due to a change in the capability of generating installations on its own system or on another system from which it is purchasing Firm Capability, the party's Net System Capability shall reflect the change as of the nearest first day of the month to the actual date upon which the change occurs. If the change occurs on the sixteenth day of a thirty-one day month, the adjustment shall become effective as of the first day of the month in which the change occurs.

A party changing its Net System Capability during a Capability Period shall have its Required System Capability determined as follows:

(1) For the months of the Capability Period prior to a change in Net System Capability, a party's Required System Capability shall be determined on the basis of its Maximum One Hour Independent Net Load experienced in those months.

(2) For the months of the Capability Period after a change in Net System Capability, a party's Required System Capability shall be determined on the basis of its Maximum One Hour Independent Net Load experienced in those months.

Section 6.05. In the event of an extended outage of generating equipment or directly related equipment due to circumstances beyond the control of the person or persons owning such equipment, the following shall obtain:

(1) If it is determined that the generating equipment subject to such outage is repairable, and if the person or persons owning such equipment proceeds with due diligence to effect the repairs necessary to restore such equipment to service, the capability of the generating equipment subject to such outage shall continue to be included, without diminution, as a component of a party's Net System Capability pending restoration of such

equipment to service. The Net System Capability of other parties purchasing capability from the party sustaining such outage shall not be subject to adjustment.

(2) If it is determined that the generating equipment subject to such outage is damaged beyond repair, the capability of such equipment shall be deemed to be unavailable to any party for any purpose from and after the first day of the month in which such determination is made, and the obligations of the parties hereto shall be redetermined to reflect such determination.

(3) The determination of whether or not generating equipment is repairable shall be made by the person or persons owning such equipment.

ARTICLE 7

OPERATING CAPABILITY AND ENERGY

SECTION 7.01. Each party shall retain control over and shall dispatch its own power sources to meet its own system load. Prior to the establishment of a single power pool operator, the Niagara Power Supervisor and the Edison System Operator will coordinate the operation of the New York Power Pool. Each day the Niagara Power Supervisor, as agent for Niagara, State, and Rochester, shall be notified by the system operators of said parties, and the Edison System Operator, as agent for Edison, Central Hudson, Long Island, and Rockland, shall be notified by the system operators of said parties of (1) capability, peak load, and energy requirements anticipated on its system for the following day; (2) power sources to be available on its system the following day for the use of other parties hereto; and (3) the hourly and incremental costs which would be incurred in order to operate such sources.

SECTION 7.02. The Required Minimum Spinning Reserve Capability to be operated by each party hereto shall be determined by the system operator of each party in accordance with the method of allocating Required Minimum Aggregate Spinning Reserve Capability established by the Operating Committee.

SECTION 7.03. Each party agrees to operate its Required Minimum Spinning Reserve Capability or to purchase Operating Capability in order to provide its Required Minimum Spinning Reserve Capability.

Section 7.04. All transactions for the purchase or sale of Operating Capability or energy hereunder shall be scheduled by mutual agreement between Niagara's Power Supervisor and Edison's System Operator, both acting within the limits of the rules, practices and procedures established by the Operating Committee. The interchange of Economy Energy shall be scheduled so that the maximum possible Energy Savings are derived therefrom.

Section 7.05. Any party, when called upon to do so, subject to the provisions of Section 2.03, shall supply Emergency Capability and Energy to any other party requesting such service. Such service shall be billed as Emergency Capability and Energy to the extent that the following conditions are met:

(1) buyer's schedule for the day has provided for sufficient Operating Capability to meet its Operating Capability Requirements.

(2) the period of such purchase shall be limited to the time required for buyer expeditiously to start additional generation on its own system, to schedule Firm Capability to which it is entitled by contract or to purchase Supplemental Capability.

To the extent that the foregoing conditions are not met, the service rendered shall be billed as Supplemental Capability and Energy.

Section 7.06. Subject to the provisions of Section 2.03, any party, when called upon to do so, shall supply Supplemental Capability, if available, to any other party requesting such service. Supplemental Capability is not to be purchased to avoid Capability Deficiency payments.

Section 7.07. The purchase of Supplemental Capability or of Assured Economy Capability shall entitle the buyer to schedule receipt of all or any part of the energy associated therewith, for the period of the capability purchase, in maximum hourly quantities not exceeding the quantity of such capability purchased. Subject to the provisions of Section 2.03, service shall not be terminated during such period without the buyer's consent.

Section 7.08. Supplemental Capability or Assured Economy Capability sold hereunder shall be provided by the seller in addition to the seller's own Operating Capability Requirements.

Section 7.09. No party shall at any time remove capability from service for scheduled maintenance purposes unless the Operating Capability available to it from its own or purchased generating sources, is, for the expected duration of the outage, sufficient to carry its Operating Capability Requirements.

Section 7.10. In order to facilitate the coordinated, economic operation of the generating equipment of the parties hereto, generating equipment shall be withdrawn from service for maintenance in accordance with schedules established by the Operating Committee.

Section 7.11. All electric energy purchased and sold hereunder shall be three-phase, 60 cycle, alternating current. Suitable equipment for controlling frequency and inter-company tie-line loading shall be provided and maintained by each of the parties hereto. The parties agree to operate such equipment in a manner consistent with the coordinated intersystem operation which is the objective of this Agreement.

Section 7.12. Each party will endeavor to control the flow of reactive kilovolt-amperes upon its system so as not to affect adversely the systems of the other parties hereto.

ARTICLE 8

Charges

Section 8.01. Each party incurring a Capability Deficiency in any Capability Period shall pay the parties having Surplus Capability during such Capability Period their proportional share of the Capability Deficiency Charge specified in Schedule B, attached hereto and made a part hereof. Payments shall be apportioned among the parties having Surplus Capability in proportion to each party's contribution to the total Surplus Capability available.

In the event that a party increases or decreases its Net System Capability during a Capability Period, the extent to which parties having Capability Deficiencies are obligated to make Capability Deficiency payments and the allocation of Capability Deficiency payments to parties having Surplus Capability shall then be determined from the Capability Deficiencies and Surplus Capabilities of each party during the months of the Capability Period prior to and following the change in Net System Capability.

Section 8.02. *Emergency Capability and Energy* purchased hereunder shall be paid for on the basis of scheduled deliveries at the aggregate of Seller's Cost for Operating Capability and Energy, as defined in Sections 1.29 and 1.28, plus ten per cent. The buyer shall compensate any Intervening Party for losses incurred.

Section 8.03. *Supplemental Capability and Supplemental Energy* purchased hereunder shall be paid for at the rates set forth in Schedule C-1, attached hereto and made a part hereof. The buyer shall compensate each Intervening Party for losses incurred and shall pay each Intervening Party the transmission facility charge set forth in Schedule C-2, attached hereto and made a part hereof.

Section 8.04. *Supplemental Capability Without Energy* purchased hereunder shall be paid for at the rate set forth in Schedule C-3, attached hereto and made a part hereof. The buyer shall pay each Intervening Party the transmission facility charge set forth in Schedule C-2.

Section 8.05. *Assured Economy Capability* purchased hereunder shall be paid for on the basis of scheduled deliveries as follows:

(1) The buyer shall pay the seller Seller's Cost for Operating Capability plus the seller's share of the Operating Capability Savings resulting from such purchase.

(2) The buyer and seller shall each receive one-half of the Operating Capability Savings resulting from the purchase of Assured Economy Capability unless one or more Intervening Parties participate in the transaction, in which event the buyer and seller shall each receive one-third of the Operating Capability Savings and the Intervening Party or Parties, collectively, shall receive one-third.

(3) When Assured Economy Capability is purchased or sold on a share-the-savings basis from or to a source outside the New York Power Pool, one-half of the share of the savings

accruing to the parties within the New York Power Pool shall be retained by the buyer or seller and the remainder divided equally among the Intervening Parties within the New York Power Pool participating in the transaction.

(4) The buyer shall make payment directly to the seller and to any Intervening Party, unless the seller is a source outside the New York Power Pool, in which event payment for capability and the seller's and Intervening Party's share of the savings shall be made to the party directly interconnected with the source outside the New York Power Pool.

SECTION 8.06. *Assured Economy Energy* purchased hereunder shall be paid for on the basis of scheduled deliveries at the following rates:

(1) The buyer shall pay the seller Seller's Cost for Energy plus the seller's share of the Energy Savings resulting from the purchase.

(2) If Assured Economy Energy is delivered to a buyer over the transmission system of an Intervening Party, the buyer shall pay such Intervening Party the Intervening Party's share of the Energy Savings resulting from the transaction plus losses attributable to transmission over the Intervening Party's system.

(3) The buyer and seller shall each receive one-half of the Energy Savings resulting from the purchase of Assured Economy Energy unless one or more Intervening Parties participate in the transaction, in which event the buyer and seller shall each receive one-third of the Energy Savings and the Intervening Party or Parties, collectively, shall receive one-third.

(4) When Assured Economy Energy is purchased or sold on a share-the-savings basis from or to a source outside the New York Power Pool, one-half of the share of the savings accruing to parties within the New York Power Pool shall be retained by the buyer or seller and the remainder divided equally among the Intervening Parties within the New York Power Pool participating in the transaction.

(5) The buyer shall make payment directly to the seller and to any Intervening Party, unless the seller is a source out-

side the New York Power Pool, in which event payment for energy and the seller's and Intervening Party's share of the savings shall be made to the party directly interconnected with the source outside the New York Power Pool.

Section 8.07. *Economy Energy* purchased hereunder shall be paid for on the basis of scheduled deliveries at the following rates:

(1) The buyer shall pay the seller Seller's Cost for Energy plus the seller's share of the Energy Savings resulting from the purchase.

(2) If Economy Energy is delivered to a buyer over the transmission system of an Intervening Party, the buyer shall pay such Intervening Party the Intervening Party's share of the [illegible] Savings resulting from the transaction, plus losses attributable to transmission over the Intervening Party's system.

(3) The buyer and seller shall each receive one-half of the Energy Savings resulting from the purchase of Economy Energy unless one or more Intervening Parties participate in the transaction, in which event the buyer and seller shall each receive one-third of the Energy Savings and the Intervening Party or Parties, collectively, shall receive one-third.

(4) When Economy Energy is purchased or sold on a share-the-savings basis from or to a source outside the New York Power Pool, one-half of the share of the savings accruing to parties within the New York Power Pool shall be retained by the buyer or seller and the remainder divided equally among the Intervening Parties within the New York Power Pool participating in such transaction.

(5) The buyer shall make payment directly to the seller and to any Intervening Party, unless the seller is a source outside the New York Power Pool, in which event payment for energy and the seller's and Intervening Party's share of the savings shall be made to the party directly interconnected with the source outside the New York Power Pool.

Section 8.08. Any energy inadvertently interchanged (that is, the difference between net energy import or export as scheduled and as metered) shall be returned to the supplying parties by the receiving parties as soon as practicable after receipt under load conditions reasonably equivalent to those under which it was received and in such quantities and at such times as may be mutually agreeable.

ARTICLE 9

INTERCOMPANY BILLING

SECTION 9.01. The Niagara Power Supervisor and the Edison System Operator shall collect, prepare and disseminate all data required for billing for Operating Capability and Energy transactions hereunder.

SECTION 9.02. Bills for transactions hereunder shall be rendered by the party providing service as soon as practicable after the first day, but not later than the twentieth day of each calendar month. Payment of the amount so billed shall be made within ten days after presentation of the bills.

SECTION 9.03. Billing data upon which Capability Deficiency charges are based together with a summary of payment due after each Capability Period to each party having Surplus Capability in any Capability Period shall be prepared by the Operating Committee's billing agency and furnished to each party hereto as soon as practicable after the end of each Capability Period. Bills based upon such data shall be rendered by parties having Surplus Capability not later than the twentieth day of the month following the end of the Capability Period in question. Payment of amounts so billed shall be made within ten days after presentation of the bill.

SECTION 9.04. Billing for all energy transactions shall be based upon scheduled deliveries. The subdivision of the net import or export of energy into the various classifications of energy utilized hereunder shall be determined as the algebraic summation of the hourly amounts of each of the various classifications of energy scheduled for purchase or sale by each party.

ARTICLE 10

POINTS OF DELIVERY AND METERING

SECTION 10.01. Electric energy will be delivered and received at the several points of interconnection between the systems of the parties hereto and at such other points of interconnection as may from time to time be established. Appropriate metering devices shall be installed as required to measure the energy flow at each point of interconnection.

Section 10.02. All metering equipment used to record transactions hereunder shall be read and maintained by the respective owners thereof. Procedures with respect to maintenance, testing, calibration, correction and registration records, and presumed tolerances of all metering equipment shall be in accordance with good operating practice and with standards which may be established by the Operating Committee.

ARTICLE 11

Records

Each party hereto shall keep complete and accurate records, meter readings, and memoranda of its operations hereunder and shall maintain such data as may be necessary to determine with reasonable accuracy any item required to be estimated hereunder. The Managing Committee, the Operating Committee, the Planning Committee and the Operating Committee's billing agency shall have the right to call for and examine all such records, meter readings and memoranda insofar as may be necessary for the purpose of ascertaining the reasonableness and accuracy of any estimates or statements of costs related to transactions hereunder.

ARTICLE 12

Uncontrollable Forces

A party hereto shall not be considered to be in default in respect of any obligation hereunder if prevented from fulfilling such obligation by reason of storm, flood, lightning, earthquake, fire, explosion, equipment failure, civil disturbance, labor dispute, act of God or the public enemy, restraint by a court or other public authority, negligence on the part of any employee, servant or agent, or any cause beyond the control of the party affected. Any party unable to fulfill its obligations by reason of any of the foregoing shall exercise due diligence to remove the disability incurred.

ARTICLE 13

LIABILITY

Each party agrees that it will indemnify, protect, and save the other parties harmless from and against any and all loss or liability for or on account of any injury (including death) or damage to any person or property, due to the negligence or misconduct of itself or any of its officers, agents or employees in or about the performance of this Agreement.

ARTICLE 14

WAIVER

Any waiver at any time of the rights of any party as to any default on the part of any other party or parties to this Agreement or as to any other matter arising hereunder shall not be deemed a waiver as to any default or other matter subsequently occurring.

ARTICLE 15

ASSIGNMENT

The written consent of all other parties hereto shall be required to effect an assignment of the rights or obligations of any party to this Agreement.

ARTICLE 16

EFFECTIVE DATE AND TERMINATION

Section 16.01. This Agreement shall become effective as of the date it is accepted for filing as a rate schedule by the Federal Power Commission, and it shall continue in effect until terminated as of the close of any Capability Period by the unanimous agreement of all persons then parties hereto.

Section 16.02. Any party may withdraw from this Agreement effective as of the close of any Capability Period upon three years written notice to each other party.

A 1741

ARTICLE 17

Short Title

This Agreement shall be known as the New York Power Pool Agreement.

In witness whereof each of the parties hereto has caused this Agreement to be executed in its corporate name by its proper officers, and its corporate seal to be affixed hereunto, as of the day and year first above written.

Central Hudson Gas & Electric
Corporation

By Lelan F. Sillin, Jr.
President

Attest:

Joseph F. Furlong
Secretary

(Seal)

Consolidated Edison Company of
New York, Inc.

By Charles E. Eble
Chairman of the Board

Attest:

E. T. Roche
Secretary

(Seal)

Long Island Lighting Company

By Edward C. Duffy
Executive Vice President

Attest:

Charles R. Pierce
Secretary

(Seal)

NEW YORK STATE ELECTRIC & GAS CORPORATION

By WILLIAM A. LYONS
President

Attest:

RICHARD KROBOTH
Ass't. Secretary
(SEAL)

NIAGARA MOHAWK POWER CORPORATION

By LAUMAN MARTIN
Vice President

JOHN G. BENACK
Secretary
(SEAL)

ORANGE AND ROCKLAND UTILITIES, INC.

By R. D. WILHITE
President

Attest:

P. Y. EPLER
Asst. Secretary
(SEAL)

ROCHESTER GAS AND ELECTRIC CORPORATION

By ROBERT E. GINNA
Chairman of the Board

Attest:

DEAN W. CAPLE
Ass't. Secretary
(SEAL)

SCHEDULE A

REQUIRED CAPABILITY MARGIN

Initially, the Required Capability Margin of the parties hereto shall be as follows:

Central Hudson Gas & Electric Corporation	14%
Consolidated Edison Company of New York, Inc.	14%
Long Island Lighting Company	14%
Orange and Rockland Utilities, Inc.	14%
New York State Electric & Gas Corporation	12%
Niagara Mohawk Power Corporation	12%
Rochester Gas and Electric Corporation	12%

SCHEDULE B

CAPABILITY DEFICIENCY CHARGE

The Capability Deficiency charge payable under Section 8.01 of this Agreement by any party incurring a Capability Deficiency in any Capability Period shall be $7.00 per kilowatt per Capability Period.

SCHEDULE C-1

SUPPLEMENTAL CAPABILITY AND SUPPLEMENTAL ENERGY

Supplemental Capability and Supplemental Energy purchased hereunder shall be paid for as follows: (1) at a combined rate of $20 per megawatt of capability per day, based upon the maximum quantity of capability scheduled each day, and 5 mills per kilowatthour of energy scheduled for delivery at the point where the energy leaves the seller's system; or (2) at a combined rate of Seller's Cost for Operating Capability and Energy, plus ten per cent, for the capability and energy scheduled each day, whichever is greater.

SCHEDULE C-2

INTERVENING PARTY TRANSMISSION FACILITY CHARGE

The transmission facility charge payable under Sections 8.03 and 8.04 of this Agreement shall be determined as follows:

(1) five per cent. of the charges set forth in Schedule C-1 or Schedule C-3 when the Intervening Party is Central Hudson, Long Island, State, Rochester or Rockland; and

(2) five per cent. of the charges set forth in Schedule C-1 or Schedule C-3 when the Intervening Party is Niagara and its transmission facilities are used for the benefit of Rochester and State; and

(3) five per cent. of the charges set forth in Schedule C-1 or Schedule C-3 when the Intervening Party is Edison and only its overhead transmission facilities are used; and

(4) ten per cent. of the charges set forth in Schedule C-1 or Schedule C-3 when the Intervening Party is Edison and its underground transmission facilities are used; and

(5) ten per cent. of the charges set forth in Schedule C-1 or Schedule C-3 when the Intervening Party is Niagara and its transmission facilities are used in connection with transactions other than those specified in paragraph (2) above.

SCHEDULE C-3

SUPPLEMENTAL CAPABILITY WITHOUT ENERGY

Supplemental Capability Without Energy purchased hereunder shall be paid for at the rate of $20 per megawatt per day based upon the maximum quantity of capability scheduled, or at Seller's Cost for Operating Capability plus ten per cent, whichever is greater.

6. State whether Con Edison in [...] 1969 [and] 1971 [...] purchased any electrical power on a firm basis. If the answer is affirmative, then for each such purchase, describe:

a. The amount of power purchased in KWH;

b. from whom it was purchased and the date of the purchase;

c. the transmitter(s) of the power, if any, from the seller to Con Edison;

d. the load factor;

e. when Con Edison began to receive the power and when it stopped receiving it;

f. the price of the power per KWH including demand charge, energy charge, and fuel adjustment;

g. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.; and

h. whether a written contract was entered into and, if so, the date of such contract.

Answer:

On information and belief:

Yes. See the following Table III for the information requested in subparagraphs (a)-(d) and (f)-(h). No answer is required as to subparagraph (e).

TABLE III

CON EDISON PURCHASES OF FIRM POWER IN 1969 AND 1971

(a) AMOUNT OF POWER (KWH)	(b) FROM WHOM PURCHASED(2)	(c) TRANSMITTER	(d) LOAD FACTOR	(f) PRICE OF POWER (MILLS/KWH)(1)	(g) ADDITIONAL CHARGES	(h) WRITTEN CONTRACT? AND DATE THEREOF
1969						
653,213,000	Long Island Lighting Co.; January 1, 1969	None	54%	8.25	none	Yes; April 26, 1968
329,095,000	Orange & Rockland Util.; April 27, 1969	None	54%	9.45	none	Yes; March 26, 1969
280,178,000	New York State Elec.& Gas Corp.; July 31, 1969	Niagara Mohawk	67%	7.80	Wheeling - $229,425.00	Yes; March 25, 1969
277,311,000	New England Power Company; July 29, 1969	Connecticut Light & Power	29%	8.50	Wheeling - 215,285.00	Yes; March 10, 1969
1971						
1,027,453,000	Rochester Gas & Electric Co.; May 14, 1971	Niagara Mohawk	84%	8.40	Wheeling - 832,583.45	Yes; April 13, 1970 (amended, June 2, 1971)
406,354,000	New York State Elec. & Gas Corp.; April 25, 1971	Niagara Mohawk	60%	12.0	Wheeling - 495,257.20	Yes; March 23, 1971
194,641,000	Connecticut Light & Power; May 3, 1971	Northeast Util.	32%	16.8	Wheeling - 434,029.00	Yes; May 1, 1971 (amended, June 1, 1971)
576,680,000	Niagara Mohawk; February 15, 1971	None	32%	16.6	none	Yes; the New York Power Pool Agreement, dated July 21, 1966, and as supplemented by written agreement dated June 7, 1971

(1) No answer required for (e)

(2) It is unclear what plaintiff means by "the date of the purchase"; for the sake of convenience, the date of the commencement of receipt of power has been set forth here.

7. State whether between January 1, 1970 and May 20, 1970, Con Edison knew of or obtained quotations on any electrical power, other than electrical power actually purchased by Con Edison, that was or may have been available to Con Edison on a firm basis and for use at any time during the summer of 1970. If the answer is affirmative, then describe for each such instance:

a. the amount of power sought;

b. the source of the power;

c. the load factor;

d. the Period during which such power was to be delivered;

e. the price asked for the power per KWH including demand charge, energy charge, and fuel adjustment;

f. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges;

g. the price offered by Con Edison for the power per KWH; and

h. the reason why the power was not purchased by Con Edison.

Answer:

See Answer to Interrogatory 10.

8. State whether between May 20, 1970 and July 21, 1970, Con Edison knew of or obtained quotations on any electrical power, other than electrical power actually purchased by Con Edison, that was or may have been available to Con Edison on a firm basis and for use at any time during the summer of 1970. If the answer is affirmative, then describe for each such instance:

a. the amount of power sought;

b. the source of the power;

c. the load factor;

d. the period during which such power was to be delivered;

e. the price asked for the power per KWH including demand charge, energy charge and fuel adjustment;

f. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges;

g. the price offered by Con Edison for the power per KWH; and

h. the reason why the power was not purchased by Con Edison.

Answer:

See answer to Interrogatory 10.

9. State whether between July 22, 1970 and October 1, 1970 Con Edison knew of or obtained quotations on any electrical power, other than power actually purchased by Con Edison, that was or may have been available to Con Edison on a firm basis and for use at any time during that period. If the answer is affirmative, then describe for each such instance:

a. the amount of power sought;

b. the source of the power;

c. the load factor;

d. the period during which such power was to be delivered;

e. the price asked for the power per KWH including demand charge, energy charge and [sic]

f. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges;

g. the price offered by Con Edison for the power per KWH; and

h. the reason why the power was not purchased by Con Edison.

Answer:

See answer to Interrogatory 10.

10. Describe all attempts by Con Edison to acquire electrical power to cover its emergency needs during the summer of 1970, other than power actually purchased by Con Edison [...] including, but not limited to:

a. the date of such attempts;

b. the persons involved;

c. the amount of power sought;

d. the price asked for the power per KWH including demand charges, energy charge, and fuel adjustment;

e. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.;

f. the price offered by Con Edison for the power per KWH;

g. how the power was classified, i.e. firm, interruptible, etc.; and

h. the reason why the power was not purchased by Con Edison.

Answer:

On information and belief:

Con Edison made inquiry generally as to what power might be acquired to cover its emergency needs during the summer of 1970. Besides the contracts described in answer to Interrogatories 1-4, it appeared, prior to the summer of 1970, that 75 MW of firm power might be available from Orange & Rockland Utilities, Inc., at a price of $48/MW-day capability charge and 4.9 mills/KWH energy charge (which included a "wheeling" charge).

However, it was determined prior to the summer of 1970 that this power was not available to Con Edison because Orange & Rockland's surplus capability was inadequate, and Con Edison did not purchase any such power.

Mr. Arthur Hauspurg, at some time following the Ravenswood facility outage but before receipt began of the 200 MW from TVA and OVEC, spoke with Mr. Nagel of American Electric Power Company ("AEP") and with Mr. Chambers of TVA regarding transmission of the 200 MW. In the course of the discussions with Mr. Nagel, the subject arose whether AEP had any additional power, but Mr. Nagel did not think at that time that anything was available. Mr. Charles F. Luce was, during this same period, advised that some AEP power might be available from time to time, but that any such power would be withdrawn at times of emergency needs. In the course of the discussions between Messrs. Hauspurg and Chambers, the subject arose whether TVA's "Watts Bar" station could be restarted. TVA was reluctant to restart the plant, and it was mentioned that restarting the station would take considerable time. No specific price was discussed. Mr. Chambers, during this time period, in the course of speaking with Mr. Luce regarding implementation of the Government's May 5 plan, also spoke about the "Watts Bar" station in the same vein as he spoke about it with Mr. Hauspurg. Mr. Luce, during the summer, spoke with Mr. Joseph Swidler of the New York Public Service Commission about whether he had any ideas as to where Con Edison might get additional power, and spoke with Mr. John Nassikas of the Federal Power Commission about whether he could locate any additional power for Con Edison. The system operators attempted to obtain power in accordance with the pooling arrangements, but such power was not always available.

On information and belief, because Con Edison does [illegible] aintain records regarding unsuccessful "attempts" to obtain power as set forth in the Interrogatory, and because in the years since 1970 personnel have retired and memories have faded, Con Edison is unable now to identify specific "attempts" beyond those described above.

11. State whether Con Edison sought any rate increases in 1970 and 1971 in the amount it could charge its customers for electrical power. If the answer is affirmative, then state for each such instance:

a. the amount of increase sought and the amount granted;

b. who had to approve the increase and the date application for the approval was made;

c. whether Con Edison's request was based in any way on the cost of electrical power which it purchased on a firm basis for use in 1970; and

d. if the answer to c. is affirmative, then describe the purchased electrical power involved, the amount of rate increase sought based upon such purchased electrical power and the amount granted.

Answer:

On information and belief:

Yes.

a. Increase Sought: Temporary -- $95.8 million; Permanent -- $142.8 million; Increase Granted: Temporary -- $55.0 million; Permanent -- $94.6 million.

b. New York Public Service Commission; June 1, 1971.

c. Yes

No answer required to (d).

12. State the rates Con Edison charged its customers for electrical power during the period of July 26, 1970 through October 1, 1970.

Answer:

On information and belief, the documents annexed hereto state the rates Con Edison charged its customers for electrical power during the period of July 26, 1970 through October 1, 1970.

SERVICE CLASSIFICATION No. 1

RESIDENTIAL AND RELIGIOUS

Applicable to Use of Service for

Light, heat and power, when supplied directly by the Company to any single-family dwelling or building or to any individual flat or apartment in a multiple-family dwelling or building or portion thereof occupied as the home, residence or sleeping place of one or more persons, or when supplied directly by the Company to any corporation or association organized and conducted in good faith for religious purposes, where such electric service is utilized exclusively in connection with such religious purposes, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct current at 120, 120/240 or 240 volts
Low Tension Alternating Current—60 cycles:
  Single phase at 120/240 volts
  Three phase at 240 volts
  Two phase at 120/240 or 230 or 240 volts

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

Rate—Bi-monthly

Energy Charge

For the first	20 kwhr (or less)	$3.40
For the next	100 kwhr	4.759 cents per kwhr
For the next	120 kwhr	3.785 cents per kwhr
For the next	180 kwhr	2.920 cents per kwhr
For excess over	420 kwhr	2.271 cents per kwhr
For excess over	720 kwhr when service is used pursuant to Special Provision E hereof, to and including October 15, 1968	1.5 cents per kwhr
For excess over	720 kwhr when service is used pursuant to Special Provision E hereof, on and after October 16, 1968:	
	For billing periods ending between May 15 and October 16	1.75 cents per kwhr
	For billing periods ending between October 15 and May 16	1.25 cents per kwhr
For consumption between	720 kwhr and 1,560 kwhr, when service is used pursuant to Special Provision F hereof	1.5 cents per kwhr

Fuel adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 31.)

Minimum Charge

$3.40 per bi-monthly period, exclusive of fuel adjustment.

Terms of Payment

Net cash on presentation of bill.

Term

30 days from the date of installation of service hereunder; terminable thereafter by the Customer upon 5 days' prior notice, and by the Company in accordance with law or the provisions of this Rate Schedule.

(Service Classification No. 1—Continued on Leaf No. 37)

Date of Issue: May 15, 1968

Date Effective: June 15, 1968

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

Consolidated Edison Company
of New York, Inc.

A 1759

P. S. C. No. 6—Electricity
Tenth Revised Leaf No. 39
Superseding Ninth Revised Leaf No. 39

SERVICE CLASSIFICATION No. 2

GENERAL

Applicable to Use of Service for

Light, heat and power for general uses.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct current at 120, 120/240 or 240 volts.

Low Tension Alternating Current—60 cycles:

- Single phase at 120/240 volts
- Three phase at 265/460 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

High Tension Alternating Current—60 cycles:

- Three phase at 2,400/4,150 volts
- Three phase at 3,000 or 7,800 volts
- Three phase at 6,900 volts
- Three phase at 13,200 volts
- Three phase at 33,000 volts
- Two phase at 1,950 or 2,400 volts
- Single phase and three phase at 2,400 volts

High Tension Alternating Current—25 cycles:

- Three phase at 6,600 volts
- Three phase at 11,000 volts

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

Rate

Demand charge (per month)

			Low Tension Service	High Tension Service
For the first	10 kw	of maximum demand	included in the energy charge	
For the next	40 kw	of maximum demand	$4.867 per kw	$4.867 per kw
For the next	50 kw	of maximum demand	$3.893 per kw	$3.893 per kw
For the next	100 kw	of maximum demand	$3.569 per kw	$3.245 per kw
For the next	9,800 kw	of maximum demand	$3.245 per kw	$2.920 per kw
For excess over	10,000 kw	of maximum demand	$2.920 per kw	$2.596 per kw

Energy charge (per month)—for both low and high tension service

For the first	10 kwhr (or less)	$1.70
For the next	290 kwhr	4.867 cents per kwhr
For the next	900 kwhr	3.461 cents per kwhr
For the next	1,800 kwhr	2.055 cents per kwhr
For the next	57,000 kwhr	1.406 cents per kwhr
For the next	90,000 kwhr	1.298 cents per kwhr
For the next	300,000 kwhr	1.082 cents per kwhr
For excess over	450,000 kwhr	0.973 cent per kwhr

(Service Classification No. 2—Continued on Leaf No. 40)

Date of Issue: March 15, 1968

Rates effective November 25, 1966 under Section 113
of the Public Service Law in Case 24146

Date Effective: April 15, 1968

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

"Case Closed March 26, 1968"

SERVICE CLASSIFICATION No. 3

BREAKDOWN, RESERVE AND AUXILIARY

Applicable to Use of Service for

Light, heat and power for breakdown, reserve and auxiliary purposes.

Character of Service (except as otherwise provided herein)

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct current at 120, 120/240 or 240 volts

Low Tension Alternating Current—60 cycles:

Single phase at 120/240 volts
Three phase at 240 volts
Two phase at 120/240 or 230 or 240 volts

High Tension Alternating Current

Available only at premises where the Company is already supplying high tension service and limited to the extent of the capacity of the Company's existing facilities.

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for all service supplied within the City of New York except the portion of the service which is resold as shown by the customer's sales tax remission certificate.

Rate

Demand charge (per year)

$58.404 for each kw of contracted demand (as hereinafter defined), payable at the rate of $4.867 per month per kw of such contracted demand.

Energy charge (per month)

For the first	9,000 kwhr	3.461 cents per kwhr
For the next	21,000 kwhr	2.271 cents per kwhr
For the next	570,000 kwhr	1.730 cents per kwhr
For the next	900,000 kwhr	1.298 cents per kwhr
For excess over	1,500,000 kwhr	1.082 cents per kwhr

Fuel adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 31).

Minimum Charge

$58.404 per year per kw of contracted demand (as hereinafter defined), payable at the rate of $4.867 per month per kw of such demand, exclusive of energy charge and fuel adjustment.

(Service Classification No. 3—Continued on Leaf No. 43)

Date of Issue: July 28, 1966

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Date Effective: September 26, 1966

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4 Irving Place, New York, N. Y. 10003

Effective date postponed
to November 25, 1966
See Supplement No. 42

"Case Closed March 26, 1968"

SERVICE CLASSIFICATION No 4
WHOLESALE

Applicable to Use of Service for

Light, heat and power for wholesale uses.
Applicable only in the Company's territory in the Boroughs of Manhattan, The Bronx, Brooklyn and Queens except that portion of the Borough of The Bronx comprising City Island, Pelham Bay Park, Williamsbridge, Wakefield, and the territory north of Pelham Bay Park to the City line.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct current at 120, 120/240 or 240 volts
Low Tension Alternating Current—60 cycles:
  Single phase at 120/240 volts
  Three phase at 265/460 volts
  Three phase at 240 volts
  Two phase at 120/240 or 230 or 240 volts
High Tension Alternating Current—60 cycles:
  Three phase at 2,400/4,150 or 13,200 volts
  Three phase at 6,900 volts
High Tension Alternating Current—25 cycles:
  Three phase at 6,600 volts
  Three phase at 11,000 volts

Increase in rates and charges for service supplied.
The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for all service supplied except the portion of the service which is resold as shown by the customer's sales tax remission certificate.

Rate

Demand charge (per month)		Low Tension Service	High Tension Service
For the first	100 kw of maximum demand	$4.867 per kw	$4.867 per kw
For the next	650 kw of maximum demand	$3.893 per kw	$3.569 per kw
For the next	9,250 kw of maximum demand	$3.245 per kw	$2.920 per kw
For the next	15,000 kw of maximum demand	$2.920 per kw	$2.596 per kw
For excess over	25,000 kw of maximum demand	$2.330 per kw	$2.000 per kw

Energy charge (per month)		
For the first	9,000 kwhr	3.461 cents per kwhr
For the next	21,000 kwhr	2.271 cents per kwhr
For the next	570,000 kwhr	1.730 cents per kwhr
For the next	900,000 kwhr	1.298 cents per kwhr
For excess over	1,500,000 kwhr	1.082 cents per kwhr

Provided,

(a) When 360 hours' use of the maximum demand for the month is less than 3,600,000 kwhr, the first 3,600,000 kwhr shall be billed at the above rates and the excess over 3,600,000 kwhr shall be billed at 0.65 cent per kwhr.

(b) When 360 hours' use of the maximum demand for the month is more than 3,600,000 kwhr, all excess kwhr over 360 hours' use of the maximum demand shall be billed at 0.65 cent per kwhr.

Fuel adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 31).

(Service Classification No. 4—Continued on Leaf No. 46)

Date of Issue: November 15, 1968 Date Effective: January 15, 1969

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

SERVICE CLASSIFICATION No. 5
ELECTRIC TRACTION SYSTEMS

Applicable to Use of Service for

Light, heat and power for electric traction purposes and miscellaneous uses in connection with the operation of a railroad or rapid transit system.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
- Single phase at 120/240 volts
- Three phase at 265/460 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

High Tension Alternating Current—60 cycles:
- Three phase at 2,400/4,150 volts
- Three phase at 13,200 or 26,400 volts

High Tension Alternating Current—25 cycles:
- Three phase at 11,000 volts
- Single phase at 11,000 or 22,000 volts
- Three phase at 33,000 volts

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

Rate

Demand charge (per month)

		Low Tension Service	High Tension Service
For the first	10 kw of maximum demand	included in the	energy charge
For the next	40 kw of maximum demand	$4.867 per kw	$4.867 per kw
For the next	50 kw of maximum demand	$3.893 per kw	$3.893 per kw
For the next	100 kw of maximum demand	$3.569 per kw	$3.245 per kw
For excess over	200 kw of maximum demand	$1.947 per kw	$1.622 per kw

Energy charge (per month)—for both low and high tension service

For the first	10 kwhr (or less)	$1.70
For the next	290 kwhr	4.867 cents per kwhr
For the next	900 kwhr	3.461 cents per kwhr
For the next	1,800 kwhr	2.035 cents per kwhr
For the next	87,000 kwhr	1.406 cents per kwhr
For excess over	90,000 kwhr	1.190 cents per kwhr

(Service Classification No. 5—Continued on Leaf No. 48)

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4 Irving Place, New York, N. Y. 10003

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to November 25, 19
See Supplement No.

"Case Closed March 26, 1968"

A 1763

SERVICE CLASSIFICATION NO. 6

PUBLIC STREET LIGHTING IN WESTCHESTER COUNTY

Applicable to Use of Service for

Lighting of public streets, thoroughfares, parks and parkways; operation of traffic control signals, fire alarm signals, warning and directional signs. Applicable to all such service supplied in the Company's territory in the County of Westchester.

Character of Service

Continuous Service

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts.

Limited Period Service—(where the Company supplies controlled period service)

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts.

Series Service

60 cycles and 6.6, 15 or 20 amperes.

Rate

1. Supplying Electric Energy—Per Calendar Month

Energy Charge

For each kilowatt hour .... 3.811 cents

Fuel Adjustment

The energy charge shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5 cents per million Btu occur (as explained on Leaf No. 31.)

2. Furnishing and Maintaining Control Equipment—Per Calendar Month

(Service hereunder is available only subject to the limitations provided in Special Provision G.)

For each point of service termination, as defined in Special Provision E hereof, where the Company supplies controlled period service from its circuits $0.876

(Service Classification No. 6—Continued on Leaf No. 51)

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4 Irving Place, New York, N. Y. 10003

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to November 25, 1966.
See Supplement No. [illegible]

"Case Closed March 26, 1968"

SERVICE CLASSIFICATION No. 12

MULTIPLE DWELLING SPACE HEATING

Applicable to Use of Service for

Light, heat and power used in a multiple dwelling in which the entire space heating requirements of the residential tenants are supplied by the use of electricity purchased from the Company, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:

Single phase at 120/240 volts
Three phase at 265/460 volts

High Tension Alternating Current—60 cycles:

Three phase at 2,400/4,150 volts

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

Rate

Demand charge (per month)

		Low Tension Service	High Tension Service
For billing periods ending between May 15 and October 16:			
For the first	10 kw of maximum demand	included in the energy charge	
For the next	40 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	250 kw of maximum demand	$3.60 per kw	$3.60 per kw
For excess over	300 kw of maximum demand	$3.30 per kw	$3.00 per kw
For billing periods ending between October 15 and May 16:			
For the first	10 kw of maximum demand	included in the energy charge	
For the next	40 kw of maximum demand	$3.30 per kw	$3.30 per kw
For the next	250 kw of maximum demand	$2.40 per kw	$2.40 per kw
For excess over	300 kw of maximum demand	$1.80 per kw	$1.50 per kw

Energy charge (per month)—for both low and high tension service

For the first	10 kwhr (or less)	$1.70
For the next	290 kwhr	4.5 cents per kwhr
For the next	900 kwhr	3.2 cents per kwhr
For the next	1,800 kwhr	1.9 cents per kwhr
For excess over	3,000 kwhr	0.9 cent per kwhr
For excess over	60,000 kwhr for billing periods ending between October 15 and May 16	0.7 cent per kwhr

(Service Classification No. 12—Continued on Leaf No. 65)

Date of Issue: May 15, 1968

Date Effective: June 15, 1968

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

A 1765

SERVICE CLASSIFICATION No. 13

BULK POWER—HIGH TENSION—HOUSING DEVELOPMENTS

Applicable to Use of Service for

Light, heat and power used in an apartment house development in which the entire electrical requirements of the development are supplied by the use of electricity purchased from the Company, subject to the Special Provisions hereof.

Character of Service

Continuous service supplied at a single service point. Frequency and voltage specified are approximate.

High Tension Alternating Current—60 cycles:

Three phase at 26,400 volts or such higher voltage as may be specified by the Company in the light of the magnitude or location of the load or other physical conditions.

Increase in rates and charges for service supplied within the City of New York.

The rates and charges under this Service Classification, including fuel adjustment and minimum charge, are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

Rate

Demand charge (per month)

For the first	10,000 kw of maximum demand	$2.060 per kw
For excess over	10,000 kw of maximum demand	$1.803 per kw

Energy charge (per month)

For the first	5,000,000 kwhr	0.773 cent per kwhr
For excess over	5,000,000 kwhr	0.670 cent per kwhr

Fuel adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 31).

Minimum Charge (per Month)

The charge for 10,000 kw of maximum demand ($20,600) plus the charge for 5,000,000 kwhr ($38,650), exclusive of fuel adjustment.

Determination of Demand

The Company will install a demand measuring device of a type approved by the Public Service Commission for the determination of the maximum demand.

See General Rule III-10(d) for definition of maximum demand.

(Service Classification No. 13—Continued on Leaf No. 68)

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4 Irving Place, New York, N. Y. 10003

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to November 25, 1966
See Supplement No. 49

"Case Closed March 26, 1968"

GENERAL INFORMATION—Continued

VI. Service Classification Riders (Available on Request)—Continued

RIDER D

Applicable to Service Classifications Nos. 1, 2, 4 and 12

(Available only in the Boroughs of Manhattan, The Bronx, Brooklyn and Queens, and the County of Westchester)

D—OPERATION OF FIRE ALARM OR SIGNAL SYSTEM

It is further understood and agreed that the Company will supply service hereunder for the operation of fire alarm or signal systems on an unmetered basis at the following rates and charges:

(a) For service connection $16.223

(b) For each gong or signal circuit, or combination of gong or signal circuits, in which there is a continuous flow of current of not over 125 milliamperes, the voltage of the supply being approximately 120 volts, or the equivalent (taken as 15 volt-amperes) at other supply voltages,

when the Customer is also taking metered service under this agreement .... $1.082 per month

when no metered service is being supplied under this agreement .... $2.782 per month

(c) For each additional 125 milliamperes (or equivalent) of continuous flow, or fraction thereof, an additional charge of .... $1.082 per month

Increase in rates and charges for service supplied within the City of New York.

The foregoing rates and charges are increased one and thirty-five hundredths percentum (1.35%) for service supplied within the City of New York.

The Customer shall provide all wiring necessary to connect the fire alarm or signal system with the Company's special service cutout, the location of the latter being determined by the Company.

No lamps or other energy consuming devices of any character shall be connected to the fire alarm or signal system; nor shall the amount of energy taken by the fire alarm or signal system exceed the maximum number of amperes, or fraction of an ampere, per gong or signal circuit, specified in the agreement.

Premises to be supplied ....

Borough or Municipality ....

Date......................... Full name of Customer ....

by...
(Signature and title of authori[illegible] representative or agent)

Date......................... Approved ....
(For G[illegible]

Date......................... Accepted for the Company [illegible]
([illegible] Vice President)

The foregoing rates and charges shall apply to all electric service supplied hereunder on and after the effective date hereof. Where a bill includes periods both before and after such effective date, the rates and charges applicable will be prorated based on the number of days of service rendered before and after the effective date related to the total number of days in the billing period.

(General Information—Continued on Leaf No. 26)

GENERAL INFORMATION—Continued

VI. Service Classification Riders (Available on Request)—Continued

RIDER F

Applicable to Service Classifications Nos. 1, 2 and 12
(Available only in the County of Westchester)

F—PRIVATE STREET LIGHTING (County of Westchester)

It is further understood and agreed that the Company will supply limited period service to outdoor lamps installed by the Customer for the illumination of private streets and grounds at a monthly charge, in conformity with the rates charged to the municipality in which the private lamps are located.

When the Customer is taking no metered service under this agreement, the monthly bill shall be increased by the amount of the applicable minimum charge under the Service Classification.

In case the municipality shall at any time hereafter change the type of incandescent lamp used for street lighting, so that it may be impracticable for the Company to supply the incandescent lamp provided for, then the Company shall have the right to substitute any incandescent lamp that it may select of at least equal candlepower or lumen output. No change shall be made by the Customer in the type, size or number of lamps.

It is agreed that the equipment supplied hereunder shall be entirely under the control of the Company; that it shall be connected with the general street lighting system of the Company and that the lamps hereunder shall be lighted each night and all night, in accordance with the schedule as provided under the contract between the Company and the municipality for the lighting of similar street lights for the municipality, which schedule requires approximately 4000 hours of lighting per annum.

The Company reserves the right to terminate any agreement for service under this Rider upon at least 5 days' prior notice in writing to the Customer, in the event the Company shall cease to supply the municipality with energy and service for street lighting in the territory in which the street lights contracted for thereunder are situated.

Every agreement for service under this Rider on the part of the Company, is contingent upon the ability of the Company, at all times to obtain suitable apparatus to make any necessary change in the voltage or the character of the energy to be supplied hereunder, and upon the understanding that the Customer shall provide the Company with all necessary permits, including permits from the municipality, to maintain the lamps at such location or locations as they may be installed pursuant hereto.

The Company agrees to supply and maintain all lamps and fixtures and renew lamps burned out in service.

Premises to be supplied ....

Municipality ....

Date...................... Full name of Customer ....

by..
(Signature and title of authorized representative or agent)

Date...................... Approved ....
(For General Manager)

Date...................... Accepted for the Company ....
(Vice President)

The foregoing rates and charges shall apply to all electric service supplied hereunder on and after the effective date hereof. Where a bill includes periods both before and after such effective date, the rates and charges applicable will be prorated based on the number of days of service rendered before and after the effective date related to the total number of days in the billing period.

(General Information—Continued on Leaf No. 23)

GENERAL INFORMATION—Continued

VI. Service Classification Riders (Available on Request)—Continued

RIDER E

Applicable to Service Classifications Nos. 1, 2 and 12
(Available only in the Boroughs of Manhattan, The Bronx, Brooklyn and Queens)

E—PRIVATE STREET LIGHTING (City of New York except the Borough of Richmond)

It is further understood and agreed that the Company will supply limited period service at approximately 60 cycles for the lighting of private streets and grounds at the following rates and charges:

Supplying Energy and Furnishing and Maintaining Control Equipment (per month)

1. For each lamp lighted and extinguished in accordance with the City of New York Street Lighting Schedule:

1500 lumen lamps	$2.2171 per lamp
3500 lumen lamps	$4.4342 per lamp

Furnishing and Maintenance of Other Equipment (per month)

1. For renewing or replacing lamps	$0.2704 per lamp
2. For renewing or replacing lamps and cleaning and replacing glassware	$0.5948 per lamp
3. For renewing or replacing lamps and furnishing and maintaining lamp fixtures and brackets	$0.5948 per lamp

The monthly bill for service hereunder shall be the sum of the appropriate items above set forth and when the Customer is taking no metered service under this agreement, the monthly bill shall be increased by the amount of the applicable minimum charge under the Service Classification.

Increase in rates and charges for service supplied.

The foregoing rates and charges are increased one and thirty-five hundredths percentum (1.35%).

In case the City of New York shall at any time hereafter change the type of incandescent lamp used for street lighting, so that it may be impracticable for the Company to supply any type of incandescent lamp previously in use, then the Company shall have the right to substitute any incandescent lamp that it may select of at least equal lumen output. No change shall be made by the Customer in the type, size or number of lamps.

The cost of connection to the mains of the Company varies with street and property conditions and will be furnished on application.

Premises to be supplied ....

Borough ....

Date.......................... Full name of Customer ....

by...
(Signature and title of authorized representative or agent)

Date.......................... Approved ....
(For General Manager)

Date.......................... Accepted for the Company ....
(Vice President)

The foregoing rates and charges shall apply to all electric service supplied hereunder on and after the effective date hereof. Where a bill includes periods both before and after such effective date, the rates and charges applicable will be prorated based on the number of days of service rendered before and after the effective date related to the total number of days in the billing period.

(General Information—Continued on Leaf No. 27)

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4 Irving Place, New York, N. Y. 10003

Effective date postponed
to November 25, 1966
See Supplement No. 49

Date Closed March 26, 1968

SERVICE CLASSIFICATION No. 1

RESIDENTIAL AND RELIGIOUS

Applicable to Use of Service for

Light, heat and power, when supplied directly by the Company to any single-family dwelling or building or to any individual flat or apartment in a multiple-family dwelling or building or portion thereof occupied as the home, residence or sleeping place of one or more persons, or when supplied directly by the Company to any corporation or association organized and conducted in good faith for religious purposes, where such electric service is utilized exclusively in connection with such religious purposes, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts
Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts
Three phase at 240 volts
Two phase at 120/240 or 230 or 240 volts

Rate

Energy Charge (per month)

For the first	10 kwhr (or less)	$1.70
For the next	50 kwhr	4.65 cents per kwhr
For the next	60 kwhr	3.65 cents per kwhr
For the next	120 kwhr	2.90 cents per kwhr
For excess over	240 kwhr	2.30 cents per kwhr
For consumption between	360 kwhr and 780 kwhr, when service is used pursuant to Special Provision E hereof	1.5 cents per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge

$1.70 per month, exclusive of fuel adjustment and increase in rates and charges.

(Service Classification No. 1—Continued on Leaf No. 35)

SERVICE CLASSIFICATION No. 2

GENERAL—SMALL

Applicable to Use of Service for

Light, heat and power for general uses where the Customer's requirements do not exceed 10 kilowatts subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts
Low Tension Alternating Current—60 cycles:
  Single phase at 120/240 volts
  Three phase at 265/460 volts
  Three phase at 240 volts
  Two phase at 120/240 or 230 or 240 volts

Rate

Energy Charge (per month)

For the first	10 kwhr (or less)	$2.40
For the next	290 kwhr	5.00 cents per kwhr
For the next	600 kwhr	4.00 cents per kwhr
For the next	1,200 kwhr	3.50 cents per kwhr
For excess over	2,100 kwhr	3.25 cents per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge

$2.40 per month, exclusive of fuel adjustment and increase in rates and charges.

(Service Classification No. 2—Continued on Leaf No. 38)

Date of Issue: August 18, 1970

Effective September 8, 1970, under authority of Public Service Commission, State of New York. Special Permission Order No. [illegible], dated September 1, 1970

Date Effective: September 17, 1970

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

SERVICE CLASSIFICATION No. 3

BREAKDOWN, RESERVE AND AUXILIARY

Applicable to Use of Service for

Light, heat and power for breakdown, reserve and auxiliary purposes.

Character of Service (except as otherwise provided herein)

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts

Low Tension Alternating Current—60 cycles:
- Single phase at 120/240 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

Rate

Demand Charge (per year)

$67.20 for each kw of contracted demand (as hereinafter defined), payable at the rate of $5.60 per month per kw of such contracted demand.

Energy Charge (per month)

For the first	9,000 kwhr	2.50 cents per kwhr
For the next	21,000 kwhr	2.00 cents per kwhr
For the next	120,000 kwhr	1.75 cents per kwhr
For the next	300,000 kwhr	1.50 cents per kwhr
For the next	1,050,000 kwhr	1.25 cents per kwhr
For excess over	1,500,000 kwhr	1.00 cent per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge

$67.20 per year per kw of contracted demand (as hereinafter defined), payable at the rate of $5.60 per month per kw of such demand, exclusive of energy charge, fuel adjustment and increase in rates and charges.

(Service Classification No. 3—Continued on Leaf No. 40)

Date of Issue: August 18, 1970

Effective September 8, 1970, under authority of Public Service Commission, State of New York, Special Permission Order No. EL-1417, dated September 1, 1970.

Date Effective: September 17, 1970

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

SERVICE CLASSIFICATION No. 4

COMMERCIAL AND INDUSTRIAL—REDISTRIBUTION

Applicable to Use of Service for

Light, heat and power for multiple-tenanted commercial or industrial buildings where the Customer's requirements are in excess of 10 kilowatts, subject to the Special Provisions of this Service Classification.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

- Direct Current at 120, 120/240 or 240 volts
- Low Tension Alternating Current—60 cycles:
  - Single phase at 120/240 volts
  - Three phase at 265/460 volts
  - Three phase at 240 volts
  - Two phase at 120/240 or 230 or 240 volts
- High Tension Alternating Current—60 cycles:
  - Three phase at 2,400/4,150 volts
  - Three phase at 13,200 volts
  - Single phase and three phase at 2,400 volts
- High Tension Alternating Current—25 cycles:
  - Three phase at 6,600 volts
  - Three phase at 11,000 volts

Rate

Demand Charge (per month)		Low Tension Service	High Tension Service
For the first	100 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	200 kw of maximum demand	$3.75 per kw	$3.45 per kw
For the next	9,700 kw of maximum demand	$3.30 per kw	$3.00 per kw
For the next	15,000 kw of maximum demand	$3.00 per kw	$2.70 per kw
For excess over	25,000 kw of maximum demand	$2.35 per kw	$2.00 per kw

Energy Charge (per month)—for both low and high tension service

For the first	9,000 kwhr	2.50 cents per kwhr
For the next	21,000 kwhr	2.00 cents per kwhr
For the next	120,000 kwhr	1.75 cents per kwhr
For the next	300,000 kwhr	1.50 cents per kwhr
For the next	1,050,000 kwhr	1.25 cents per kwhr
For excess over	1,500,000 kwhr	1.00 cent per kwhr

Provided,

(a) When 360 hours' use of the maximum demand for the month is less than 3,600,000 kwhr, the first 3,600,000 kwhr shall be billed at the above rates and the excess over 3,600,000 kwhr shall be billed at 0.625 cent per kwhr.

(b) When 360 hours' use of the maximum demand for the month is more than 3,600,000 kwhr, all excess kwhr over 360 hours' use of the maximum demand shall be billed at 0.625 cent per kwhr.

(Service Classification No. 4—Continued on Leaf No. 43)

SERVICE CLASSIFICATION No. 5

ELECTRIC TRACTION SYSTEMS

Applicable to Use of Service for

Light, heat and power for electric traction purposes and miscellaneous uses in connection with the operation of a railroad or rapid transit system, where the Customer's requirements are in excess of 10 kilowatts.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
- Single phase at 120/240 volts
- Three phase at 265/460 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

High Tension Alternating Current—60 cycles:
- Three phase at 2,400/4,150 volts
- Three phase at 13,200 or 26,400 or 33,000 volts

High Tension Alternating Current—25 cycles:
- Three phase at 11,000 volts
- Single phase at 11,000 or 22,000 volts
- Three phase at 33,000 volts

Rate

Demand Charge (per month)

		Low Tension Service	High Tension Service
For the first	100 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	100 kw of maximum demand	$3.75 per kw	$3.45 per kw
For excess over	200 kw of maximum demand	$2.00 per kw	$1.70 per kw

Energy Charge (per month)—for both low and high tension service

For the first	3,000 kwhr	2.10 cents per kwhr
For the next	57,000 kwhr	1.55 cents per kwhr
For the next	90,000 kwhr	1.35 cents per kwhr
For the next	7,350,000 kwhr	1.25 cents per kwhr
For excess over	7,500,000 kwhr	1.075 cents per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

(Service Classification No. 5—Continued on Leaf No. 46)

Date of Issue: August 18, 1970

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Date Effective: September 17, 1970

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

SERVICE CLASSIFICATION No. 6

PUBLIC AND PRIVATE STREET LIGHTING

Applicable to Use of Service for

Lighting of public and private streets, thoroughfares, parks and parkways; operation of traffic control signals, fire alarm signals, warning and directional signs.

Character of Service

Continuous Service

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts.

Limited Period Service—(where the Company supplies controlled period service)

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts.

Series Service

60 cycles and 6.6, 15 or 20 amperes.

Rate

1. Supplying Electric Energy—Per Calendar Month

Energy Charge

For each kilowatthour .... 4.1 cents

Fuel Adjustment

The energy charge shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

2. Furnishing and Maintaining Control Equipment—Per Calendar Month

(Service hereunder is available only subject to the limitations provided in Special Provision G.)

For each point of service termination, as defined in Special Provision E hereof, where the Company supplies controlled period service from its circuits $0.876

3. Furnishing and Maintenance of Other Street Lighting Equipment—Per Calendar Month (Applicable only in the City of New York)

(Service hereunder is available only subject to the limitations provided in Special Provision H.)

For renewing or replacing lamps	$0.70 per lamp
For renewing or replacing lamps and cleaning and replacing glassware	$1.30 per lamp
For renewing or replacing lamps and furnishing and maintaining lamp fixtures and brackets	$0.90 per lamp

The monthly bill for service hereunder shall be the sum of the applicable charges at the rates in Parts "1", "2" and "3" above set forth, plus the increase in rates and charges provided herein.

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charges are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

(Service Classification No. 6—Continued on Leaf No. 49)

SERVICE CLASSIFICATION No. 7

RESIDENTIAL AND RELIGIOUS—HEATING

Applicable to Use of Service for

Light, heat and power, where the Customer's entire space and water heating requirements are supplied electrically, when supplied directly by the Company to any single-family dwelling or building or to any individual flat or apartment in a multiple-family dwelling or building or portion thereof occupied as the home, residence or sleeping place of one or more persons, or when supplied directly by the Company to any corporation or association organized and conducted in good faith for religious purposes, where such electric service is utilized exclusively in connection with such religious purposes, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2 the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts

Low Tension Alternating Current—60 cycles:

- Single phase at 120/240 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

Rate

Energy Charge (per month)

For the first	10 kwhr (or less)	$1.70
For the next	50 kwhr	4.65 cents per kwhr
For the next	60 kwhr	3.65 cents per kwhr
For the next	120 kwhr	2.90 cents per kwhr
For the next	120 kwhr	2.30 cents per kwhr
For excess over 360 kwhr		
For the first monthly billing period ending after May 15 and for four successive monthly billing periods thereafter		1.75 cents per kwhr
For all other billing periods		1.25 cents per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge

$1.70 per month, exclusive of fuel adjustment and increase in rates and charges.

Terms of Payment

Net cash on presentation of bill.

(Service Classification No. 7—Continued on Leaf No. 53)

Date of Issue: August 18, 1970

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Date Effective: September 17, 1970

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

SERVICE CLASSIFICATION No. 8

MULTIPLE DWELLINGS—REDISTRIBUTION

•Applicable to Use of Service for

Light, heat and power for multiple dwellings where the Customer's requirements are in excess of 10 kilowatts, subject to the Special Provisions of this Service Classification.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts.
Low Tension Alternating Current—60 cycles:
- Single phase at 120/240 volts
- Three phase at 265/460 volts
- Three phase at 240 volts
- Two phase at 120/240 or 230 or 240 volts

High Tension Alternating Current—60 cycles:
- Three phase at 2,400/4,150 volts

Rate

Demand Charge (per month)

		Low Tension Service	High Tension Service
For the first	100 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	200 kw of maximum demand	$3.60 per kw	$3.30 per kw
For excess over	300 kw of maximum demand	$3.30 per kw	$3.00 per kw

Energy Charge (per month)—for both low and high tension service

For the first	10,000 kwhr	1.65 cents per kwhr
For the next	50,000 kwhr	1.50 cents per kwhr
For the next	90,000 kwhr	1.35 cents per kwhr
For the next	300,000 kwhr	1.20 cents per kwhr
For excess over	450,000 kwhr	1.10 cents per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge

The charge for 10 kilowatts of demand, $45.00 per month, exclusive of energy charge, fuel adjustment and increase in rates and charges.

(Service Classification No. 8—Continued on Leaf No. 56)

SERVICE CLASSIFICATION No. 9

GENERAL—LARGE

Applicable to Use of Service for

Light, heat and power for general uses where the Customer's requirements are in excess of 10 kilowatts, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Direct Current at 120, 120/240 or 240 volts.
Low Tension Alternating Current—60 cycles:
    Single phase at 120/240 volts
    Three phase at 265/460 volts
    Three phase at 240 volts
    Two phase at 120/240 or 230 or 240 volts
High Tension Alternating Current—60 cycles:
    Three phase at 2,400/4,150 volts
    Three phase at 3,000 or 7,800 volts
    Three phase at 6,900 volts
    Three phase at 13,200 volts
    Three phase at 33,000 volts
    Single phase and three phase at 2,400 volts
High Tension Alternating Current—25 cycles:
    Three phase at 6,600 volts

Rate

Demand Charge (per month)		Low Tension Service	High Tension Service
For the first	100 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	200 kw of maximum demand	$3.75 per kw	$3.45 per kw
For the next	9,700 kw of maximum demand	$3.30 per kw	$3.00 per kw
For the next	15,000 kw of maximum demand	$3.00 per kw	$2.70 per kw
For excess over	25,000 kw of maximum demand	$2.35 per kw	$2.00 per kw

Energy Charge (per month)—for both low and high tension service

For the first	3,000 kwhr	2.10 cents per kwhr
For the next	147,000 kwhr	1.55 cents per kwhr
For the next	300,000 kwhr	1.40 cents per kwhr
For the next	1,050,000 kwhr	1.25 cents per kwhr
For the next	1,500,000 kwhr	1.10 cents per kwhr
For excess over	3,000,000 kwhr	1.00 cent per kwhr

Provided,

(a) When 360 hours' use of the maximum demand for the month is less than 3,600,000 kwhr, the first 3,600,000 kwhr shall be billed at the above rates and the excess over 3,600,000 kwhr shall be billed at 0.625 cent per kwhr.

(Service Classification No. 9—Continued on Leaf No. 58)

A 1778

SERVICE CLASSIFICATION No. 12

MULTIPLE DWELLING SPACE HEATING

Applicable to Use of Service for

Light, heat and power used in a multiple dwelling in which the entire space heating requirements of the residential tenants are supplied by the use of electricity purchased from the Company, subject to the Special Provisions hereof.

Character of Service

Of the various characteristics of service listed and more fully described in General Rule III-2, the following may be designated for service by the Company under this Service Classification, subject to the limitations set forth in such Rule. Frequencies and voltages shown are approximate. All are continuous.

Standard Service

Any derivative of the standard alternating current, 3 phase, 4 wire system at 60 cycles and 120/208 volts.

Non-Standard Service

Low Tension Alternating Current—60 cycles:
Single phase at 120/240 volts
Three phase at 265/460 volts

High Tension Alternating Current—60 cycles:
Three phase at 2,400/4,150 volts

Rate

Demand Charge (per month)

For Summer billing periods as defined below:		Low Tension Service	High Tension Service
For the first	10 kw of maximum demand	included in the energy charge	
For the next	40 kw of maximum demand	$4.50 per kw	$4.50 per kw
For the next	250 kw of maximum demand	$3.60 per kw	$3.60 per kw
For excess over	300 kw of maximum demand	$3.30 per kw	$3.00 per kw

For Winter billing periods as defined below:			
For the first	10 kw of maximum demand	included in the energy charge	
For the next	40 kw of maximum demand	$3.30 per kw	$3.30 per kw
For the next	250 kw of maximum demand	$2.40 per kw	$2.40 per kw
For excess over	300 kw of maximum demand	$1.80 per kw	$1.50 per kw

Energy Charge (per month)—for both low and high tension service:

For the first	10 kwhr (or less)	$2.40
For the next	290 kwhr	5.0 cents per kwhr
For the next	900 kwhr	3.2 cents per kwhr
For the next	1,800 kwhr	1.9 cents per kwhr
For excess over	3,000 kwhr	0.9 cent per kwhr
For excess over	60,000 kwhr for Winter billing periods	0.7 cent per kwhr

The Summer billing period covers the first scheduled monthly billing period ending after May 15 and four such successive monthly billing periods thereafter. The Winter billing period covers all other billing periods.

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

(Service Classification No. 12—Continued on Leaf No. 63)

A 1779

SERVICE CLASSIFICATION No. 13

BULK POWER—HIGH TENSION—HOUSING DEVELOPMENTS

Applicable to Use of Service for

Light, heat and power used in an apartment house development in which the entire electrical requirements of the development are supplied by the use of electricity purchased from the Company, subject to the Special Provisions hereof.

Character of Service

Continuous service supplied at a single service point. Frequency and voltage specified are approximate.

High Tension Alternating Current—60 cycles:

Three phase at 26,400 volts or such higher voltage as may be specified by the Company in the light of the magnitude or location of the load or other physical conditions.

Rate

Demand Charge (per month)

For the first	5,000 kw of maximum demand	$2.15 per kw
For the next	5,000 kw of maximum demand	$2.00 per kw
For excess over	10,000 kw of maximum demand	$1.80 per kw

Energy Charge (per month)

For the first	5,000,000 kwhr	0.77 cent per kwhr
For excess over	5,000,000 kwhr	0.67 cent per kwhr

Fuel Adjustment

The charges set forth herein shall be subject to a fuel adjustment per kwhr supplied hereunder when changes from the base cost of 35.5¢ per million Btu occur (as explained on Leaf No. 27).

Increase in Rates and Charges

The rates and charges under this Service Classification including fuel adjustment and minimum charge are increased by the applicable percentage shown on Leaf No. 28 for service supplied within the municipality where the Customer is taking service.

Minimum Charge (per month)

The charge for 8,500 kw of maximum demand ($17,750) plus the charge for 3,400,000 kwhr ($26,180), exclusive of fuel adjustment and increase in rates and charges.

Determination of Demand

The Company will install a demand measuring device of a type approved by the Public Service Commission for the determination of the maximum demand.

See General Rule III-11(d) for definition of maximum demand.

Terms of Payment

Net cash on presentation of bill.

Term

Ten years from the date of installation of service hereunder; terminable thereafter by the Customer upon one year's prior notice in writing, and by the Company in accordance with law or the provisions of this Rate Schedule.

(Service Classification No. 13— Continued on Leaf No. 66)

Date of Issue: August 18, 1970

Effective September 3, 1970, under authority of Public Service Commission, State of New York, Special Permission Order No. EL-1417, dated September 1, 1970.

Date Effective: September 17, 1970

Issued by W. J. Murphy, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

GENERAL INFORMATION—Continued

VII. Adjustment of Rates According to Changes in the Cost of Fuel

Factor of Adjustment

The rates under all Service Classifications shall be subject each month to an addition or deduction of 0.0133 cent per kwhr when the cost of one million Btu of fuel alongside increases or decreases 0.5 cent from the specified base price, and for each 1.0 cent change thereafter; the cost of one million Btu hereunder to be taken at the average cost of such fuel to Consolidated Edison Company of New York, Inc., alongside.

The computation of the factor of adjustment (0.0133 cent), used in determining the rate adjustment, will be filed with the Public Service Commission prior to April 15th of each year.

Base Cost of Fuel

The base cost of fuel, per million Btu, under all Service Classifications, is .... 35.5 cents

Average Cost of Fuel

The average cost of fuel will be determined monthly by dividing the cost of coal, oil, gas, and other fuel used in producing electricity on hand at the beginning of the month plus the cost of such fuel delivered during the month by the aggregate Btu content of the quantity on hand at the beginning of the month plus the aggregate Btu content of the quantity delivered during the month.

Alongside, as used herein, means alongside the electric generating stations or alongside the storage yard, wherever the Company accepts delivery of the coal or other fuel from the supplier or transportation agency. The alongside costs include (1) cost of coal at the mine or of other fuel at the point of delivery by the vendor, (2) transportation from the mine or point of delivery by the vendor to alongside the electric generating station or storage yard, (3) New York City compensating use tax, the Federal transportation tax and other similar taxes, (4) cargo insurance and uninsured cargo losses on barge, collier or tanker deliveries, (5) unloading, handling and reloading at the storage yard, and (6) transportation from storage yard to alongside electric generating stations. Alongside costs do not include (1) demurrage or damage to barges, colliers or tankers, (2) unloading or handling at electric generating stations, and (3) interest and taxes on fuel in storage or on property and equipment used for storage of fuel.

Fuel Statement

The rate adjustment per kwhr as determined above shall be effective during the second succeeding month after the month for which the average cost shall have been determined and shall continue in effect until changed.

Not less than 3 days prior to any change in the rate adjustment per kwhr resulting from this provision for adjustment of rates according to changes in the cost of fuel, a statement showing the base cost of fuel, the present average cost of fuel, the point or points of delivery, the date at which and the period for which the average was determined, and the amount of adjustment per kwhr, together with the period such rate adjustment per kwhr will remain in effect, will be duly filed with the Public Service Commission, apart from this Rate Schedule. Such statement will be available to the public at Company offices at which applications for service may be made.

(General Information—Continued on Leaf No. 32)

Date of Issue: April 30, 1969

Date Effective: June 1, 1969

Issued by W. J. MURPHY, *Assistant Vice President*
4 Irving Place, New York, N. Y. 10003

A 1781

Statement No. 139
to
P. S. C. No. 6—Electricity

STATEMENT OF FUEL ADJUSTMENT

Effective July 1, 1970

Applicable to Billings Under Service Classifications
of the Schedule for Electricity Service

of

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

(Issued under Authority of 16 NYCRR 136.55 and 136.56)

Average Cost of Fuel

For the month of May 1970, as determined June 17, 1970, the average cost of fuel per million Btu, as defined on Leaf No. 31, was .... 38.245 Cents

Rate Adjustment under 35.5 Cent Base

The average cost of fuel (38.245 cents) results in three steps of adjustment. For the month of July 1970, however, only two steps of adjustment will be applied because, during the month of July 1965, the number of credit steps of adjustment billed would have been increased by one step if the charges of the Company's natural gas supplier as retroactively reduced, had been used in computing the average cost of fuel, instead of the charges then made by such supplier.

Accordingly, for the month of July 1970, the rate adjustment per kwhr applicable to all Service Classifications will be (2 steps of adjustment X 0.0136 cent) 0.0272 Cent

Filed for CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

By W. J. Murphy
Assistant Vice President

Dated June 25, 1970

A 1782

Statement No. 140
to
P. S. C. No. 6—Electricity

STATEMENT OF FUEL ADJUSTMENT

Effective August 1, 1970

Applicable to Billings Under Service Classifications
of the Schedule for Electricity Service

of

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

(Issued under Authority of 16 NYCRR 136.55 and 136.56)

Average Cost of Fuel

For the month of June 1970, as determined July 17, 1970, the average cost of fuel per million Btu, as defined on Leaf No. 31, was .... 39.569 Cents

Rate Adjustment under 35.5 Cent Base

The average cost of fuel (39.569 cents) results in four steps of adjustment. For the month of August 1970, however, only three steps of adjustment will be applied because, during the month of August 1969, the number of steps charged would have been reduced by one step if the charges of the Company's natural gas supplier as retroactively reduced, had been used in computing the average cost of fuel, instead of the charges then made by such supplier.

Accordingly, for the month of August 1970, the rate adjustment per kwhr applicable to all Service Classifications will be (3 steps of adjustment × 0.0136 cent) 0.0408 Cent

Filed for CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

By W. J. Murphy
Assistant Vice President

Dated July 28, 1970

A 1783

Statement No. 141
to
P. S. C. No. 6—Electricity

STATEMENT OF FUEL ADJUSTMENT

Effective September 1, 1970

Applicable to Billings Under Service Classifications of the Schedule for Electricity Service

of

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

(Issued under Authority of 16 NYCRR 136.55 and 136.56)

Average Cost of Fuel

For the month of July 1970, as determined August 17, 1970, the average cost of fuel per million Btu, as defined on Leaf No. 31, was .... 44.675 Cents

Rate Adjustment under 35.5 Cent Base

The average cost of fuel (44.675 cents) results in nine steps of adjustment. For the month of September 1970, however, only eight steps of adjustment will be applied because, during the month of September 1969, the number of steps charged would have been reduced by one step if the charges of the Company's fuel oil supplier as retroactively reduced, had been used in computing the average cost of fuel, instead of the charges then made by such supplier.

Accordingly, for the month of September 1970, the rate adjustment per kwhr applicable to all Service Classifications will be (8 steps of adjustment × 0.0136 cent) .... 0.1088 Cent

Filed for CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

By W. J. Murphy
Assistant Vice President

Dated August 27, 1970

GENERAL INFORMATION—Continued

VII. Adjustment of Rates According to Changes in the Cost of Fuel

Factor of Adjustment

The rates under all Service Classifications shall be subject each month to an addition or deduction of 0.0130 cent per kwhr when the cost of one million Btu of fuel alongside increases or decreases 0.5 cent from the specified base price, and for each 1.0 cent change thereafter; the cost of one million Btu hereunder to be taken at the average cost of such fuel to Consolidated Edison Company of New York, Inc., alongside.

The computation of the factor of adjustment (0.0130 cent), used in determining the rate adjustment, will be filed with the Public Service Commission prior to April 15th of each year.

Base Cost of Fuel

The base cost of fuel, per million Btu, under all Service Classifications, is 35.5 cents.

Average Cost of Fuel

The average cost of fuel will be determined monthly by dividing the cost of coal, oil, gas, and other fuel used in producing electricity on hand at the beginning of the month plus the cost of such fuel delivered during the month by the aggregate Btu content of the quantity on hand at the beginning of the month plus the aggregate Btu content of the quantity delivered during the month.

Alongside, as used herein, means alongside the electric generating stations or alongside the storage yard, wherever the Company accepts delivery of the coal or other fuel from the supplier or transportation agency. The alongside costs include (1) cost of coal at the mine or of other fuel at the point of delivery by the vendor, (2) transportation from the mine or point of delivery by the vendor to alongside the electric generating station or storage yard, (3) New York City compensating use tax, the Federal transportation tax and other similar taxes, (4) cargo insurance and uninsured cargo losses on barge, collier or tanker deliveries, (5) unloading, handling and reloading at the storage yard, and (6) transportation from storage yard to alongside electric generating stations. Alongside costs do not include (1) demurrage or damage to barges, colliers or tankers, (2) unloading or handling at electric generating stations, and (3) interest and taxes on fuel in storage or on property and equipment used for storage of fuel.

Fuel Statement

The rate adjustment per kwhr as determined above shall be effective during the second succeeding month after the month for which the average cost shall have been determined, and shall continue in effect until changed.

Not less than 3 days prior to any change in the rate adjustment per kwhr resulting from this provision for adjustment of rates according to changes in the cost of fuel, a statement showing the base cost of fuel, the present average cost of fuel, the point or points of delivery, the date at which and the period for which the average cost was determined, and the amount of adjustment per kwhr, together with the period such rate adjustment per kwhr will remain in effect, will be duly filed with the Public Service Commission, apart from this Rate Schedule. Such statement will be available to the public at Company offices at which applications for service may be made.

(General Information—Continued on Leaf No. 28)

A 1785

Statement No. 1
to
P.S.C. NO. 8 - Electricity

STATEMENT OF FUEL ADJUSTMENT

Effective September 17, 1970
Effective September 8, 1970, under authority of Public Service Commission,
State of New York, Special Permission Order No. EL-1417, dated September 1, 1970
Applicable to Billings Under Service Classifications
of the Schedule for Electricity Service
of
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
(Issued under Authority of 16 NYCRR 136.55 and 136.56)

Average Cost of Fuel

For the month of June 1970, as determined July 17, 1970, the average cost of fuel per million Btu, as defined on Leaf No. 27, was.. 39.569 Cents

Rate Adjustment Under 35.5 Cent Base

The average cost of fuel (39.569 cents) results in four steps of adjustment. For the month of August 1970, however, only three steps of adjustment will be applied because, during the month of August 1969, the number of steps charged would have been reduced by one step if the charges of the Company's natural gas supplier as retroactively reduced, had been used in computing the average cost of fuel, instead of the charges then made by such supplier.

Accordingly, the rate adjustment per kwhr applicable to all Service Classifications will be (3 steps of adjustment x 0.0130 cent)................................ 0.0390 Cent

Filed for CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

W. J. Murphy
By W. J. Murphy
Assistant Vice President

Dated August 20, 1970

1st Set

13. For each of the rates listed in answer to Interrogatory 12, state the percentage of the total electrical power sold by Con Edison during each of the following periods for which Con Edison charged that rate:

a. July 26 through July 31, 1970;

b. August 1 through August 31, 1970;

c. September 1 through October 1, 1970.

Answer:

On information and belief:

The data requested is compiled on a monthly basis and is not available for all specific intervals set forth in subparagraphs (a)-(c). The following Table IV gives the requested data for the months of July, August, and September, 1970.

TABLE IV

SALES OF ELECTRICITY BY RATE, JULY TO SEPTEMBER, 1970

SC No.	July 1970 % of Total	August 1970 % of Total	September 1970 % of Total
1	23.54565	25.58094	26.02568
2	60.07099	58.45322	21.63768
3	.00218	.00223	.00266
4	4.24713	3.70978	9.31624
5	1.77675	1.60313	1.59910
6	.12948	.13366	.14321
7	-	-	.10393
8	-	-	5.18692
9	-	-	23.29206
12	.06162	.05811	.05509
13	.17539	.16740	.16906
Riders			
D	-	-	-
E	.00021	.00018	-
F	.00062	.00059	-
SP. Cont.	9.98998	10.29076	12.46837
Total	100.00000	100.00000	100.00000

14. (a) As to the AEC power purchased by Con Edison, state:

- i. the total amount actually paid by Con Edison for the power;
- ii. the amount paid per KWH including demand charge, energy charge, and fuel adjustment;
- iii. all additional charges or surcharges, such as wheeling or transmission charges, administrative and general charges, etc.;
- iv. the place or places that the power came into the Con Edison system and the amount at each such place.

(b) State whether the AEC power went to Con Edison customers in specific areas serviced by Con Edison or whether it went to customers in all areas serviced by Con Edison. If the answer is the former, then describe each such area and the amount of AEC power which went to it.

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14. Upon information and belief,

(a)i. Con Edison paid $1,648,275.51 (excluding transmission charges indicated in (a)iii below) for the power obtained from Tennessee Valley Authority (TVA) and Ohio Valley Electric Corporation (OVEC)

ii. Con Edison paid 5.20 mills/KWH (excluding transmission charges) for the power obtained from TVA and OVEC.

Con Edison paid 7.85 mills/KWH (including transmission charges) for the power obtained from TVA and OVEC.

iii. Con Edison paid transmission charges of $837,046.26 for transmitting the power from TVA and OVEC to New York City.

iv. The power obtained from TVA and OVEC entered the Con Edison system at the Goethals (Staten Island) interconnection.

Answer to 14(b):

On information and belief:

Con Edison does not segregate power received from different specific sources and cannot determine whether the power purchased from TVA and OVEC went to customers in specific areas serviced by Con Edison or whether it went to customers in all areas serviced by Con Edison.

15. State whether the AEC power purchased by Con Edison was sold by Con Edison to its customers at a profit or loss, and state the amount of such profit or loss. Describe in detail the calculations used and factors considered in determining such amount.

Answer:

On information and belief:

Con Edison's expenses as a whole are recovered through the rate-making process as determined by the New York Public Service Commission. It is not feasible to assign specific labels such as "profit" or "loss" to a particular purchase or transaction. Con Edison does not segregate power supplied from different sources. Therefore, whether the 200 MW purchased by Con Edison from TVA and OVEC was sold to Con Edison's customers at a "profit" or "loss" and the magnitude of such "profit" or "loss" cannot be determined.

16. State the cost to Con Edison to produce one KWH of electrical power at Ravenswood in July, 1970, before it broke down. State whether such power was sold at a profit or loss, the amount of such profit or loss and describe in detail the calculations used and factors considered in determining such amount.

Answer:

On information and belief.

The cost to Con Edison to produce one KWH of electrical power at Ravenswood Generation Station in July 1970 before it broke down was 0.459¢ per KWH. See also answer to Interrogatory 15.

24. [To the extent Con Edison kept its records on a daily basis, state]for each day between and including July 26, 1970, and October 1, 1970:

a. the electrical generating capacity of Con Edison in KWH available for use;

b. the amount of purchased electrical power available to Con Edison identifying how much of this purchased power was available on a firm basis;

c. the amount of other electrical power used and its source;

d. the peak demand that day and the time such peak occurred;

e. the amount of electrical power kept in reserve by Con Edison during such peak;

f. whether any actions were taken pursuant to the plan described in response to Interrogatory 20 [sic] above and, if so, the nature and duration duration of such actions; and

g. assuming that the AEC power was not available that day:

(i) would Con Edison have been required to make a voltage reduction pursuant to the plan described in response to Interrogatory 20 above, and, if so, how much of a voltage reduction; and

(ii) would Con Edison have been required to engage in load shedding pursuant to the plan described in response to Interrogatory 20 above, and, if so, to what extent; and

(iii) if the answer to (i) or (ii) is negative, state the reasons for such answer.]

Answer:

On information and belief:

The information requested in subparagraphs (a) to (e) is not (except for firm power purchases under subparagraph b) ordinarily maintained on a daily basis;

rather, the information is maintained on a daily basis only for those days on which a voltage reduction was effected and those days on which a weekly peak demand was reached, and such information is stated below in Table V.

As to subparagraph (f), such information is as available (*i.e.*, regarding voltage reductions or load shedding) is set forth in Table VI below.

As to subparagraph (g), it cannot be determined from available records whether Con Edison would have effected a voltage reduction or load shedding (or an additional voltage reduction or load shedding) on any given day had the power purchased by Con Edison from TVA and OVEC not been purchased because at that time records indicating what steps have been taken under "Procedure for Action When Generating Capacity is at or Below Critical Level" (Operating Procedure E-60) were not ordinarily retained and since the effect of a given step on a given day is variable. The system operator used the Procedure simply as a guide to insure the basic integrity of the system.

A 1794

TABLE V.

DAILY OPERATING INFORMATION IN PERIOD JULY 26, 1970 THROUGH OCTOBER 1, 1970

AY(1)	(a) AVAILABLE CON EDISON GENERATING CAPACITY (MW)(2)	(b)(i) TOTAL PURCHASED POWER (MW)	(b)(ii) TOTAL FIRM PURCHASED POWER (MW)(3)	(c) AMOUNT OF OTHER POWER USED (MW)	(d) PEAK DEMAND (MW) AND TIME THEREOF (4)		(e) RESERVE (
ly 27	5991	1331	516	0	7020	3-4P	302
ly 28	5892	1430	516	0	7021	11-12N	301
ly 29	5885	1302	516	0	6973	11-12N	214
ly 30	5725	1335	516	0	6693	3-4P	367
ly 31	5726	1316	517	0	6656	2-3P	386
gust 3	5954	1293	517	0	6777	3-4P	470
gust 13	5715	1255	420	0	6794	3-4P	176
gust 14	5901	1217	520	0	6857	2-3P	261
gust 17	5966	1230	520	0	6886	2-3P	310
gust 20	5682	1435	520	0	6691	3-4P	426
gust 28	5822	1342	520	0	7043	3-4P	121
pt. 4	5499	1226	520	0	6517	11-12N	208
pt. 10	5480	1277	520	0	6555	3-4P	202
pt. 16	5695	1174	520	0	6498	4-5P	371
pt. 22	5736	1200	520	0	6835	3-4P	101
pt. 23	5925	1028	520	0	6898	4-5P	55
pt. 24	5796	1261	519	0	6917	3-4P	140
pt. 25	5853	1324	467	0	6988	3-4P	189
pt. 28	6172	956	467	0	5127	3-4P	2001

) All days are in 1970; the information is available only for those days in which the weekly peak occurred or days in which a voltage reduction was effected. All figures are at the time of the daily peak.

Excludes purchased power.

des power purchased from TVA and OVEC.

tes PM; "N" indicates noon.

TABLE VI

VOLTAGE REDUCTION AND LOAD SHEDDING JULY 26 - OCTOBER 1, 1970

A. VOLTAGE REDUCTION

	TIME		
DATE	FROM	TO	AMOUNT
July 27th	1:15 PM	5:00 PM	3%
July 28th	9:40 AM	1:15 PM	3%
	1:15 PM	5:40 PM	5%
July 29th	10:08 AM	1:43 PM	3%
	1:43 PM	5:00 PM	5%
July 30th	10:10 AM	4:50 PM	3%
	11:08 AM(1)	4:50 PM	5%
July 31st	10:05 AM	4:50 PM	3%
Aug. 13th	10:15 AM(1)	11:50 AM	3%
	11:50 AM	12:47 PM	3%
	12:47 PM	5:01 PM	5%
Aug. 14th	9:55 AM	5:15 PM	3%
	10:00 AM(1)	5:15 PM	5%
Aug. 17th	9:42 AM	1:00 PM	3%
	1:00 PM	3:30 PM	5%
	3:30 PM	3:45 PM	8%
	3:45 PM	5:08 PM	5%
Aug. 20th	3:00 PM	5:20 PM	3%
Sept. 4th	10:50 AM	1:35 PM	3%
	1:35 PM	4:41 PM	5%
	4:41 PM	4:54 PM	3%
Sept. 22nd	11:40 AM	1:00 PM	3%
	1:00 PM	2:35 PM	5%
	2:35 PM	4:35 PM	8%
	4:35 PM	6:00 PM	5%

(1) At selected locations

	TIME		
DATE	FROM	TO	AMOUNT
Sept. 22nd	6:00 PM	6:13 PM	3%
	7:05 PM	8:40 PM	5%
	8:15 PM (1)	8:40 PM	3%
	8:40 PM	9:10 PM	3%
Sept. 23rd	8:55 AM	9:10 AM	3%
	9:10 AM	9:25 AM	5%
	9:25 AM	5:15 PM	8%
	5:15 PM	7:55 PM	5%
	7:55 PM (1)	8:23 PM	5%
	7:55 PM	8:55 PM	3%
Sept. 24th	8:56 AM	9:25 AM	3%
	9:00 AM (1)	9:25 AM	5%
	9:25 AM	5:40 PM	5%
	5:40 PM	6:15 PM	3%
Sept. 25th	1:10 PM	1:23 PM	3%
	1:18 PM (1)	1:23 PM	5%
	1:23 PM	5:00 PM	5%
	5:00 PM	5:15 PM	3%

(1) At selected locations

B. LOAD SHEDDING

	TIME		
DATE	FROM	TO	AREA
Sept. 22nd	3:53 PM	4:40 PM	Pleasantville
Sept. 22nd	3:53 PM	6:47 PM	Fresh Kills

28. For the following documents which defendant gave plaintiff pursuant to plaintiff's Request for Documents, identify the person at Con Edison who first acquired the document, the date of its acquisition, the circumstances under which it was acquired and the other persons at Con Edison who saw it and when they saw it:

a. Statement by George A. Lincoln entitled "Implementation of Actions Regarding Electric Power Problems" (4-6);[1]

b. Press release dated May 5, 1975 [sic] entitled "Government Taking Actions to Meet Summer Power Needs" (7-9);

c. Booklet entitled "Survey of Electric Power Problems--May 1970" (10-17);

d. Table entitled "Estimated Costs at Two Power Levels and Estimated Loss Due to Power Reductions" (42 and 43);

e. Letter agreements modifying power contracts between the AEC and the Ohio Valley Electric Corporation and the Tennessee Valley Authority (46-47, 52-53, 54-55);

f. Tables I, II and III entitled "Cost Penalties of Power Reduction" (128-130, 131-133, 134-136 and 137-139); and

g. Table entitled "Estimated Costs at Two Power Levels and Estimated Loss Due to Power Reductions" (140)

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a. It is uncertain who first acquired the document, the date of its acquisition, or the circumstances under which it was acquired. Upon information and belief, John T. Conway, Executive Assistant to the Chairman of the Board, saw this document after it had been publicly released, but it is uncertain when he saw it. Upon information and belief, others may also have seen it, but this was not confirmed as of this date.

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[1] The numbers in parentheses refer to the numbers stamped in the lower right hand corner of each of these documents for identification purposes by defendant's attorneys prior to their being given to plaintiff.

b. It is uncertain who first acquired the document, the date of its acquisition, or the circumstances under which it was acquired. Upon information and belief, John T. Conway saw this document after it had been publicly released, but it is uncertain when he saw it. Upon information and belief, others may also have seen it, but this was not confirmed as of this date.

c. It is uncertain who first acquired the document, the date of its acquisition, or the circumstances under which it was acquired. Upon information and belief, John T. Conway saw this document after it had been publicly released, but it is uncertain when he saw it. Upon information and belief, others may also have seen it, but this was not confirmed as of this date.

d. Bertram Schwartz first acquired the document on or about August 10, 1970 from George Quinn, AEC, at their meeting in Germantown. Upon information and belief, others may also have seen it, but this was not confirmed as of this date.

e. On information and belief, Joseph D. Block first acquired these documents at a meeting with Messrs. Minsch and Hennessey of AEC on November 25, 1970. Upon information and belief, others may also have seen it, but this was not confirmed as of this date.

f. These documents were first acquired by Con Edison at a meeting on September 1, 1970 between Messrs. Luce, Block and Schwartz of Con Edison and representatives of the AEC, including George Quinn. Upon information and belief, others may also have seen them, but this was not confirmed as of this date.

g. Same as (d), supra.

Con Edison objects to answering the Interrogatory to the extent it seeks information concerning persons other than officers of Con Edison. Con Edison further objects to answering that portion of the Interrogatory regarding "other persons at Con Edison who saw it and when they saw it", to the extent it might be deemed to request information concerning persons whose depositions have already been taken by plaintiff.

Further Answer:

a. To the best of his recollection, Bertram Schwartz believes that he saw this document in May or June, 1970, but does not recall the specific circumstances. Upon information and belief, Louis H. Roddis, Jr., may have seen this document approximately in May, 1970. (Roddis deposition, 49-50, 54-55). Upon information and belief, Charles F. Luce in the late spring of 1970, may have seen notices in trade journals relating to the plaintiff's plan to assist the power industry in the summer of 1970 (Luce deposition, 47-49).

b. To the best of his recollection, Bertram Schwartz believes that he saw this document in May or June 1970, but does not recall the specific circumstances. Upon information and belief, Louis H. Roddis, Jr., may have seen this document approximately in May, 1970 (Roddis deposition, 49-50, 54-55). Upon information and belief, Charles F. Luce in the late spring of 1970, may have seen notices relating to the plaintiff's plan to assist the power industry in the summer of 1970 (Luce deposition, 47-49).

c. To the best of his recollection, Bertram Schwartz believes that he saw this document in May or June, 1970, but does not recall the specific circumstances. Upon information and belief, Louis H. Roddis, Jr., may have seen this document approximately in May, 1970 (Roddis deposition, 49-50, 54-55). Upon information and belief, Charles F. Luce in the late spring of 1970 may have seen notices relating to the plaintiff's plan to assist the power industry in the summer of 1970. (Luce deposition, 47-49).

d. On information and belief, no further answer.

e. On information and belief, no further answer.

f. On information and belief, no further answer.

g. On information and belief, no further answer.

SECOND SET INTERROGATORIES

1. Plaintiff answers Second Set Interrogatory No. 1, as modified by the April 7, 1977 order, as follows:

There were three instances between May 5, 1970, and the present in which plaintiff reduced its power consumption at the request of its power suppliers or other parties. The first was from October 1, 1970 through October 31, 1970, when plaintiff reduced its power consumption by 150 MW at its Paducah plant at the request of TVA. TVA paid a power premium of 14 percent of the power given up by plaintiff. The second was from November 8, 1974 to December 31, 1974, when plaintiff reduced its total power consumption from 3340 MW to 1905 MW at the request of TVA. TVA paid a surcharge of $7,811.215 (4.25 mills per KWH plus $250 per MW reduced for mixing and maintenance losses). The third was a reduction from 4240 MW to 3340 between January 11, 1977 and February 10, 1977 made at the request of TVA which paid a surcharge of $3,942,822 (6.25 mills per KWH plus $250 per MW reduced for mixing and maintenance losses).

A 1803

Geo. Lewis 1/24/70

50 - Mt. Holly
100 - Paducah
50 - Portsmouth

Can reduce to HW
per Lewis 20
10 towns at [illegible].

0023

PX 49

A 1804

previously 45%

going up: For
[illegible] ucc
[illegible], other co's
— and US for TVA

Strike etc. production
losses --- and then
k's ---

Don't want to change
[illegible].

0024

A 1805

Important [illegible]

TVA and AEP

of Con Edison --

They will deal

Charles F. Luce
Chairman of the Board

A 1806

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-2003

August 20, 1970

Mr. George F. Quinn
Assistant General Manager
  for Development and Production
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Quinn:

This letter is to set forth our position concerning the charges for the 200 MW of power Con Edison is now receiving from the Tennessee Valley Authority (TVA) and the Ohio Valley Electric Corporation (OVEC), which has been made available from power previously committed to AEC. Our purpose is to set forth our understandings as to the sale of this power to Con Edison and our views as to "surcharges" AEC believes should be imposed on its sale.

Facts Concerning Charges

Con Edison expected to pay for this power on the same basis as other utilities receiving power similarly released earlier this summer. The billings for July indicate the amounts billed for power costs, subject to adjustment, were 4.5 mills per kwh for TVA and 5 mills per kwh for OVEC.

The AEC has requested a "surcharge" in addition to power costs, in an amount estimated at 5.41 mills per kwh, representing consequential damages to the AEC arising from an increase in the unit operating costs of its gaseous diffusion plants which accompanied the release of power. The actual charge on the bill for July came to 5.45 mills per kwh.

The result of this "surcharge" is that the weighted average cost of this power, at a 100% load factor, excluding transmission, is 10.10 mills per kwh, using the figures from the July bill.

Con Edison also purchases energy at a 100% load factor

PX 50

from New England Power Company and from Rochester Gas and Electric Company. Power is received from New York State Electric and Gas Company at a 50% load factor. Supplementary power is available to Con Edison on a short-term basis from the New York Power Pool, Quebec-Hydro and the P-J-M Pool. The charges for this power, compared to the AEC charges, at customary load factors, are indicated by the following chart:

Company	Load Factor	Cost w/o Transmission (mills per kwh)	Avg	Delivered Cost (mills per kwh)
New England Power Company	100%	4.8	5.2	5.0
Rochester Gas & Electric Co.	100%	6.6	90-100% 6.5	7.3
New York State Electric & Gas	50%	9.6	8.9	10.7
New York Power Pool	50%	9.0 (avg.)		9-10
Quebec-Hydro	50%	7.2		9.3
P-J-M Pool	50%	11.0		12.0
AEC without "surcharge"	100%	4.65		8.1
AEC with "surcharge"	100%	10.1		13.5

Accordingly, the charges that would result from applying a "surcharge" to the TVA and OVEC power would, even without transmission, be far in excess of comparable charges at a 100% load factor and even higher than charges for supplementary power with a 50% load factor, except for purchases from the P-J-M Pool. With transmission, this would constitute (with possible minor exceptions) the most expensive power delivered to Con Edison during the month of July.

Facts Concerning Agreement

Power prices subject to regulation are always based on the cost of its production and delivery. Filed rate tariffs almost invariably provide that a utility is not liable for consequential damages for failure to furnish power. It would follow that a customer who has voluntarily relinquished power would not be entitled to consequential damages for his voluntary act. Similarly, in contracts we regularly enter into with other utilities, the power charge is based upon the cost of delivering the energy with no provision for consequential damages to the supplier's customers. There is no question that, as a legal matter, your request is most unusual.

As between Con Edison and the AEC, this matter was discussed in a telephone conversation between us on July 23. You indicated that you believed an appropriate charge for the power to be provided Con Edison would include a "surcharge" beyond the cost the AEC would otherwise have paid to TVA and OVEC for this power. During that conversation, I expressed no objection to Con Edison's being properly charged for this power; but I made clear that it would not be appropriate, in our opinion, for Con Edison to be charged differently than other utilities receiving power released by the Federal Government.

The AEC has announced that on July 1 and July 2, it released approximately 450 MW "for transmission by interconnecting grid to various cities in the East, Midwest and South, as required." It is my understanding that this power has been sold without the "surcharge" now being requested from Con Edison.

Plan of Federal Government

We also note that the furnishing of power to Con Edison was part of a well-publicized program of the President's Office of Emergency Preparedness. This plan was first announced by General George A. Lincoln, Director of the Office of Emergency Preparedness, on May 5, 1970. He said that the Federal government was taking measures to assist in the supply of power this summer in anticipation of shortages in many areas of the East and Midwest. Among the measures that General Lincoln indicated the Federal government would take was curtailment of power which otherwise would be supplied to the AEC gaseous diffusion plants. Other measures enumerated included conservation wherever possible in the use of power by other Federal agencies, including the Defense Department.

Pursuant to this plan, the AEC, as noted above, released approximately 450 MW of power on July 1 and July 2 for various cities in the East, Midwest and South. After Con Edison's 1000 MW unit at Ravenswood tripped out on the evening of July 21, Mr. David Freeman, Director of the Energy Policy Staff in the President's Office of Science and Technology, called to remind me of the Government's contingency plans announced in May by General Lincoln and advised that AEC power might be made available to Con Edison to help in the current emergency.

On July 23, the President announced that the AEC would make power available to Con Edison "pursuant to the contingency plans previously developed and announced by the Office of Emergency Preparedness". The President stated that the plan was implemented to relieve what he described as "the critical power shortage in New York City."

On July 27, the AEC announced that "an additional 200,000 kilowatts of power was reduced at the uranium enriching plants for reassignment to the New York City area." The AEC said, "The electricity is being reassigned pursuant to steps identified by the Office of Emergency Preparedness in its effort to prevent serious shortages during the summer peak season."

We cannot understand how Con Edison should be liable for consequential damages incurred by an agency of the Federal government in the implementation by the President of the United States of a Federal plan to protect the health, safety and welfare of the public. It is also difficult for us to distinguish between the power made available to Con Edison in late July and the power made available to other utilities in early July, both pursuant to the same plan announced in May. The AEC's own press release of July 27 linked these two releases of power by describing them in the same paragraph as follows:

> "The reduction of power consumption at the AEC's three gaseous diffusion plants was accomplished in two steps. On July 1-2, approximately 450,000 kilowatts of power was dropped for transmission by interconnecting grid to various cities in the East, Midwest and South, as required. On July 26-27, an additional 200,000 kilowatts of power was reduced at the uranium enriching plants for reassignment to the New York City area."

A 1810

I understand that you wish to avoid a direct payment from Con Edison to the AEC and instead choose to have TVA and OVEC reduce their billings to AEC in the amount of this "surcharge", with TVA and OVEC making up the difference by collecting this amount from Con Edison. It is my understanding that, in order to effect this transaction, you have already sent contracts to TVA and OVEC. Although Con Edison cannot be obligated by contracts to which it is not a party, in order to avoid misunderstandings we dispatched telegrams to TVA and OVEC, copies of which were sent to you last week.

We respectfully conclude that Con Edison is not liable for consequential damages allegedly incurred by the AEC. We are prepared to discuss this with you further; but since the amount of this charge concerns more than the AEC and Con Edison, I have taken the liberty of sending copies of this letter and prior government public announcements to General George Lincoln of the Office of Emergency Preparedness, Mr. David Freeman of the Energy Policy Staff, Chairman John Nassikas of the Federal Power Commission, Mr. James Watson of TVA, Mr. Donald Cook of the American Electric Power Company (representing OVEC) and Chairman Joseph Swidler of the New York State Public Service Commission.

Sincerely,

Charles F. Luce

cc: Gen. George A. Lincoln
Mr. David Freeman
Mr. John N. Nassikas
Mr. James E. Watson
Mr. Donald C. Cook
Mr. Joseph G. Swidler

OHIO VALLEY ELECTRIC CORPORATION

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

A 1811

August 25, 1970

Mr. Charles F. Luce, Chairman
Consolidated Edison Company
of New York, Inc.
4 Irving Place
New York, New York 10003

Dear Chuck:

Thank you for your note of August 20, 1970, enclosing a copy of your letter of the same date addressed to Mr. George F. Quinn, Assistant General Manager for Development and Production, United States Atomic Energy Commission.

In your letter to Mr. Quinn you state:

> "Since the 200 MW were made available as part of a plan announced by the Office of Emergency Preparedness on May 5, we strongly believe that the price basis for the 200 MW which we received should be the same as the 450 MW released earlier to other utilities under the same program."

While I am not familiar with the contractual relations between the Atomic Energy Commission and the Tennessee Valley Authority with respect to the supply of power by the latter to the former, so far as Ohio Valley Electric Corporation is concerned -- with whose affairs I do have a familiarity -- I believe the above-quoted statement reflects a misunderstanding of the basis upon which OVEC supplies power to the AEC.

OVEC is a privately owned electric utility company whose common stock is held by the following systems and companies in the following amounts:

	%
Allegheny Power System, Inc.	12.5
American Electric Power Company	37.8
The Cincinnati Gas & Electric Company	9.0
Columbus and Southern Ohio Electric Company	4.3
The Dayton Power and Light Company	4.9
Kentucky Utilities Company	2.5
Louisville Gas and Electric Company	7.0
Ohio Edison Company	16.5
Southern Indiana Gas and Electric Company	1.5
The Toledo Edison Company	4.0
	100.0

At the inception of the OVEC project a contract was entered into with the AEC to supply a specified amount of power to it. Provisions were also contained which permitted, under certain circumstances, of which a specified notice period was one, a reduction in the amount of power purchased by the AEC. However, in order to support the indebtedness of OVEC incurred in connection with the construction of the facilities, it was necessary for the sponsor companies to agree to pay such amounts as, when added to amounts received by OVEC from AEC, would enable OVEC to pay all of its operating and other expenses, including its debt service. The sponsors are entitled, in return for this promise, to all of the power in the plants not taken by AEC.

I think it should be clear from this that the AEC does not have the right to "release" any power from the OVEC project to Consolidated Edison Company of New York or any other utility. As I have indicated, AEC does have the right, under certain circumstances, to reduce its power purchases from OVEC, but the notice period is 42 months, and the sponsor companies have both the obligation to pay for the power and the right to receive it when the reduction becomes effective. The fact is that OVEC has never had any customers other than AEC and its sponsor companies. From the foregoing it should be clear that the only basis upon which the 50 mw of power previously being purchased by AEC could be and was supplied

A 1813

to Consolidated Edison Company was through a reduction by AEC of its demand at the AEC project and a waiver by OVEC and the sponsor companies of the AEC obligation to pay the charges associated with this block of power. Further, since the TVA power and OVEC power could get to Consolidated Edison only through the American Electric Power system, the American Electric Power Service Corporation, acting on behalf of AEP operating companies, undertook to coordinate the arrangements for transmitting both the TVA power and the OVEC power on to you.

For your further information, the 50-mw load reduction by AEC, to which the OVEC sponsor companies became entitled, could have been utilized productively on the systems of the sponsor companies at the time when your company was facing a severe power shortage. Nonetheless, in order to cooperate in a program in which the President of the United States had expressed interest, and in order to be of assistance to you in your particularly difficult situation, the sponsor companies gave up their right to this 50 mw of power.

I think, therefore, that to speak of the 200 mw of power as being released to other utility companies as well as 450 mw of power "released earlier to other utilities", whatever its application may be to the TVA-AEC situation, seems to suggest that the Consolidated Edison Company of New York has but to work out some arrangement with AEC and then to advise OVEC of its wishes. Any attempt to characterize the OVEC sponsor company situation in this way is not only incorrect but will, I believe, make it much more difficult, if not impossible, in the future to obtain necessary consents by all of the OVEC sponsor companies.

Since your letter of August 20, 1970 to Mr. Quinn was also sent to Messrs. Freeman, Lincoln, Watson, and Swidler, I am also sending to them a copy of this letter.

Sincerely yours,

Donald C. Cook
President

DCC/mbc

cc: Mr. George F. Quinn
Mr. S. David Freeman
General George A. Lincoln
Mr. James E. Watson
Chairman Joseph C. Swidler

A 1814

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

INCOME STATEMENT

Fiscal Year ended June 30, 1971

	(thousands)		Per Unit of Separative Work Sold	
✓ Revenues from enriching services				
Domestic, trade	$114,091			
Foreign, trade	71,515			
AEC programmatic activities	50,403	$236,009	$26.71 ✓	
Cost of separative work sold (schedule C)		094 184,~~575~~	20.89	20.83
Gross margin on sales		51,~~434~~ 913	5.82	5.88
Operating expense				
Process development	8,406			
Startup, shutdown and standby costs	553			
Processing of tails residues for storage	239			
Preparation of materials for shipment	1,057			
AEC administration	3,668			
Security investigations	211			
Community support	397			
All other expenses	864			
Depreciation expense (note 3)	1,170	16,565	1.87	
Net operating income		35,348 34,869	3.95	4.00
Interest on Government investment allocated to current operations (note 4)		73 53,2~~56~~ 53,523	6.06	6.03
Deficit for fiscal year		~~[illegible]~~ $ 18,654	$ 2.11	~~2.06~~ 2.03
		~~17,905~~ 17,925		

A 1815

SCHEDULE C

U. S. ATOMIC ENERGY COMMISSION
URANIUM ENRICHMENT ACTIVITY

COSTS OF PRODUCTION AND SALES

Fiscal Year ended June 30, 1971

		Separative Work Units (thousands)	Costs	Per Unit of Separative Work	
Enrichment operations					
Power costs (schedule D)	94,125		$ 92,707 +1.4	$13.96	13.91 1.28 for increment
Direct and indirect labor			4,025	0.61	
Maintenance services			6,453	0.97	
Engineering support			1,686	0.25	
Decontamination and uranium control			2,332	0.35	
Plant test program			8,013	1.21	
Lighting, water and other utilities			4,263	0.64	
Depreciation expense (note 3)			24,132	3.63	
Operating supplies and expense			1,156	0.18	
General plant services			2,866	0.43	
Other overhead			4,196	0.63	
All other general and administrative			5,614	0.85	
Allowance for feed material losses (note 5)			620 ✓	0.09 ✓	✓
	6766	6,640 ✓ 126	158,063 +1.4 159,481	23.80	23.57
Add: Beginning work in process inventory		534 ✓	11,344 ✓	21.24	
	7300	7,174 ~~126~~	169,407 +1.4 170,825	23.61	23.40
Less: Ending work in process inventory		434 ✓	10,248 ✓	23.61	
Cost of finished production	6866	6,740	159,159 +1.4 160,577.4	23.61	23.50
Add: Beginning finished product inventory		15,328 ✓	301,826 ✓	19.69	
Cost of separative work available for sale	22,194	22,194 ✓ 22,068 126	462,403 ✓ 460,985 +1.4	20.83 ✓ 20.89	
Less: Ending finished product inventory	13,358	126 13,232 ✓	~~278,309~~ 276,410 278,309	20.89 ✓	20.83 ✓
Cost of separative work sold (Exhibit II)	✓	8,836 ✓	$184,575 184,094	$20.89 ✓	20:83 ✓

Spell out what categories mean ✓

okay

averaging

4009987

3981256

AFFIDAVIT OF PERSONAL SERVICE UPON ATTORNEY

STATE OF NEW YORK,

COUNTY OF NEW YORK.

Michael Steiner being duly sworn, deposes and says:

1. I am over the age of eighteen years and am not a party to the action.

2. On December 14, 1977 at about 12:00 Noon, I served the annexed

JOINT APPENDIX (Vols. 1-4)

upon

Robert B. Fiske, Jr., U.S. Attorney for the S.D.N.Y.

attorney for the

United States of America-Plaintiff-Appellee-Cross-Appellant

(a) by personally delivering and leaving same with a person in charge of said attorney office at No. One Saint Andrews Plaza, N.Y., N.Y.

~~(b) by personally delivering and leaving same in a conspicuous place at~~ [illegible]

~~said office being open at that time~~ [illegible] ~~in charge thereof.~~

~~(c) by depositing same enclosed in a wrapper directed to said attorney in~~ [illegible] ~~box at No.~~

~~and that said office was~~ [illegible] ~~service was made.~~

Michael Steiner

Michael Steiner

Sworn to before me this 14 day of December, 1977.

Daniel A. Maher

DANIEL A. MAHER
NOTARY PUBLIC, State of New York
No. 4176[illegible]
Qualified in Queens County